

CA1
MT 76
- A66



NATIONAL ENERGY BOARD REASONS FOR DECISION

In the Matter of the Application Under
Part IV of the National Energy Board Act
(Tolls Application)

of

INTERPROVINCIAL PIPE LINE LIMITED

February 1984



NATIONAL ENERGY BOARD
REASONS FOR DECISION


In the Matter of the Application Under
Part IV of the National Energy Board Act
(Tolls Application)

of

INTERPROVINCIAL PIPE LINE LIMITED

February 1984

Ce rapport est publié
séparément dans les deux
langues officielles.



Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

<https://archive.org/details/31761117083162>

RECITAL AND APPEARANCES

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder; and

IN THE MATTER OF an application by Interprovincial Pipe Line Limited (hereinafter called "the Applicant") for certain orders respecting tolls and tariffs pursuant to Part IV of the National Energy Board Act, filed with the Board under File No. 1762-J1-6.

HEARD at Ottawa, Ontario on November 15, 16, 17, 18, 21, 22, 23, 24, 29, and 30, 1983.

BEFORE:

L.M. Thur	)	Presiding Member
J.R. Jenkins	)	Member
W.G. Stewart	)	Member

APPEARANCES:

E.G. Sheasby)	
R.P. Smith	)	Interprovincial Pipe Line Limited
B. Brand)	
R.S. O'Brien, Q.C.	)	Air Canada, Canadian Pacific Air
	)	Lines Limited, Nordair Ltd.
J. Conrad	)	Canadian Federation of Independent
	)	Petroleum Marketers
R. Pashelka		Chevron Canada Resources Limited
M. Belich		Dome Petroleum Limited
J.E. Horler	)	Independent Petroleum Association
	)	of Canada
E. Decter		PanCanadian Petroleum Limited
W. Muscoby	)	Texaco Canada Resources Ltd.
S. McDougall)	
J.M. Murray		TransCanada PipeLines Limited
E. Smith	)	Minister of Energy for Ontario
M. Rounding)	
P.G. Rogers	)	National Energy Board
A.R. Macdonald)	

TABLE OF CONTENTS

	Page
RECITAL AND APPEARANCES	(i)
ABBREVIATIONS AND DEFINITIONS.....	(iv)
NOTE ON FORMAT OF THE REASONS FOR DECISION.....	(vi)
EXECUTIVE SUMMARY	(vii)
 CHAPTER	
1. THE APPLICATION.....	1
2. PROPOSED PROPANE SERVICE.....	3
3. RATE BASE	
3.1 Summary	5
3.2 Average Net Assets in Service	5
3.3 Assets Related to the Proposed Propane Service.....	6
3.4 Aircraft.....	7
3.5 Working Capital.....	7
3.5.1 Provision for Cash Working Capital.....	7
3.5.2 Payments to Bondholders and Shareholders.....	9
3.5.3 Prepaid Expenses	9
3.6 Allowance for Funds Used During Construction	10
4. COST OF SERVICE EXCLUDING RETURN	
4.1 Summary	11
4.2 Salaries and Wages	11
4.3 Fuel and Power Costs.....	11
4.4 Outside Services Expense and Materials and Supplies Expense	11
4.5 Toll Hearing Expenses	12
4.6 Oil Loss Allowance.....	12
4.7 Employee Benefits	13
4.8 Taxes Other Than Income Taxes	14
4.9 Depreciation and Amortization.....	14
4.10 Income Taxes	14
4.10.1 Income Tax Provision	14
4.10.2 Specific Items to be Included in the Income Tax Calculations	14
4.10.3 Timing Differences Related to Eligible Capital Expenditures	14
4.11 Allocation of Expenses to Non-Carrier Activities	14
5. CAPITAL STRUCTURE AND RATE OF RETURN	
5.1 Older System	17
5.2 Deemed Capitalization	17
5.3 Long-Term Debt.....	17
5.4 Prefunded Debt	18
5.5 Common Equity.....	18
5.5.1 Common Equity Ratio	18
5.5.2 Rate of Return on Common Equity.....	20
5.6 Rate of Return on Rate Base.....	21
5.7 Montreal Extension	21

6. REVENUE REQUIREMENT	23
7. THROUGHPUT	
7.1 Surplus Supply of Light Crude Oil and Equivalent	25
7.2 Producibility and Disposition of Light Sour Blend (LSB)	26
7.3 NEB Forecast	26
8. TOLL DESIGN AND OTHER TARIFF MATTERS	
8.1 Toll Design	27
8.2 Cost Allocation	27
8.3 Changes in Tariff Rules and Regulations	28
8.3.1 Applicable Date of Tolls	28
8.3.2 Linefill Requirements	28
8.3.3 Minor Wording Changes	28
8.4 NGL and Refined Product Surcharges	29
8.4.1 Introduction	29
8.4.2 Need for Surcharges	29
8.4.3 Surcharge Revenue Requirement - Methodology	29
8.4.4 Surcharges - Additive Versus Percentage Basis	30
8.5 Refined Product Tankage Charge - Gretna	31
8.6 Propane Toll	31
8.7 Interim Tolls	31
9. DISPOSITION	33

APPENDICES

I Toll Order No. TO-1-84	35
II Hearing Order No. RH-3-83	37
III Interim Order No. TOI-2-83	41
IV NEB Determination of Assets in Service	43
V Adjustments Related to the Jet Aircraft	49
VI Determination of Older System Average Rate Base and Average Construction Work in Progress	51
VII Interprovincial Pipe Line Limited Forecast Deliveries in Cubic Metres Per Day	53

ABBREVIATIONS AND DEFINITIONS

Abbreviations

Act	— National Energy Board Act
AFUDC	— Allowance for funds used during construction
API	— American Petroleum Institute
Applicant Company Interprovincial IPL	— Interprovincial Pipe Line Limited
Board NEB	— National Energy Board
Chevron	— Chevron Canada Resources Limited
CWIP	— Construction work in progress
DCF	— Discounted cash flow
Dome Dome Petroleum	— Dome Petroleum Limited
IPAC	— Independent Petroleum Association of Canada
IPL (NW) Ltd.	— Interprovincial Pipe Line (NW) Ltd.
IRR	— Investor required rate of return
Lakehead	— Lakehead Pipe Line Company Inc.
LCE	— Light Crude Equivalent
NGL	— Natural Gas Liquids
m³	— Cubic metre
m³/d	— Cubic metre per day
m³.km	— Cubic metre-kilometre

Definitions

API Volumetric Expansion Tables	— Tables used for the conversion of bulk volumes of petroleum to a standard temperature
Cubic metre-kilometre	— One cubic metre of product moved a distance of one kilometre
Integrated System	— Interprovincial's Canadian pipeline system comprised of the Older System and the Montreal Extension
Integrated System Tolls	— Tolls which would be paid by all shippers on the Interprovincial pipeline system, derived from the revenue requirement of the entire integrated system.
Modified Older System	— The pipeline system which would be operated by Interprovincial in Canada if the extension from Sarnia to Montreal did not exist.
Modified Older System Tolls	— Tolls derived from the revenue requirement of the Modified Older System.
Montreal Extension	— That part of Interprovincial's pipeline system in Canada extending from Sarnia to Montreal that was constructed under the authority of Certificate of Public Convenience and Necessity OC-30, and any addition authorized by the Board.
Older System	— Interprovincial's Canadian pipeline system other than the Montreal Extension.
Test Year	— 1 January 1984 to 31 December 1984.
Two-Part Tolls	— The system of toll design in which the total tolls for shipments to Montreal consist of the Modified Older System tolls plus the toll for transportation from Sarnia to Montreal.

NOTE ON THE FORMAT OF THE REASONS FOR DECISION

As a result of the Board's decision to adopt a throughput forecast which differs from that submitted by the Applicant (as explained in Chapter 7), amounts for certain components of the revenue requirement are not contained in these Reasons for Decision. They are marked in the text by a "†" symbol and must be calculated by the Applicant. Accordingly, Interprovincial must file revised rate base, cost of service and revenue requirement data for the Older System and the Montreal Extension and new tolls in accordance with Order No. TO-1-84 and these Reasons.

Upon receipt of these figures, the Board will confirm that they have been determined in accordance with the Board's directions and will then issue, in the interest of completeness, an Addendum to the present Reasons containing all approved figures.

At the time the Addendum is issued, the Board will also issue a final toll order approving the new tolls. The Addendum will be comprised of the following tables and appendices:

Table

3-1	Summary of Rate Base - Older System
3-2	Summary of Rate Base - Montreal Extension
3-3	Determination of Working Capital - Older System
3-4	Determination of Working Capital - Montreal Extension
4-1	Cost of Service Excluding Return - Older System
4-2	Cost of Service Excluding Return - Montreal Extension
4-3	Provision for Income Taxes and Deferred Income Taxes
5-2	Derivation of Rate of Return on Rate Base - Older System
5-4	Derivation of Rate of Return on Rate Base - Montreal Extension
6-1	Revenue Requirement
8-3	Calculation of Power Cost Saving - NGL
8-4	Surcharge Revenue Requirement - Revised Methodology for NGL
Appendix V	Adjustments Related to the Jet Aircraft
Appendix VI	Determination of Older System Average Rate Base and Average Construction Work in Progress

EXECUTIVE SUMMARY

(Note: This summary is provided solely for the convenience of the reader and does not constitute part of this Decision or the reasons for it.)

THE APPLICATION

Interprovincial Pipe Line Limited filed a toll application dated 9 September 1983 using 1984 as the test year. Among other things, the Company applied for an increase in the rate of return on rate base, for a change in the method of calculating the NGL and refined products surcharges from an additive basis to a percentage basis based on a levelling approach, and requested a similar percentage surcharge for a proposed propane service.

DECISIONS

The major decisions of the Board with respect to the Company's Application and to the other principal issues addressed during the hearing are summarized below:

ADDENDUM TO THE REASONS FOR DECISION

The Board adopted a throughput forecast that differs from that submitted by the Company, therefore, certain components of the revenue requirement are not contained in these Reasons for Decision and they must be calculated by the Applicant. Upon receipt of these figures, the Board will confirm that they have been determined in accordance with the Board's directions and will then issue an Addendum to the present Reasons containing all approved figures as well as a final toll order approving the new tolls.

PROPANE SERVICE

The Board has decided to defer to a later date consideration of all matters related to the proposed propane service because it is unlikely that this project will come into service during the test year. Accordingly, the Board has removed the associated costs from the Older System rate base and revenue requirement.

RATE BASE

Average Net Assets in Service

The Company determined its average net assets in service using a simple average of the test year's opening and closing balances. The Board has determined that a 13-month average would be more appropriate and has adjusted the net assets in service to reflect this decision.

Aircraft

The Company owns a jet aircraft which is used by both IPL and its U.S. subsidiary, Lakehead Pipe Line Company Inc. Interprovincial assigned a portion of the test year operating costs and depreciation expense of the aircraft to Lakehead using the previously approved methodology, however, the Company had not assigned to Lakehead any of the return component of the cost of the aircraft.

The Board finds that this return component should be allocated using the methodology employed to allocate the depreciation expense. To reflect this adjustment, the Board directs IPL to reduce the Older System test year revenue requirement by the return allocated to Lakehead and by the income taxes associated with such return.

Working Capital

The Applicant requested a provision for cash working capital based upon an average 25-day lag in the timing of payments and receipts for the Older System and a 9-day lag for the Montreal Extension. In the absence of evidence by IPL substantiating its provisions for lumpiness in the timing of payments and receipts, the Board has reduced the requested provision for cash working capital to 23 days for the Older System and to 2 days for the Montreal Extension.

COST OF SERVICE EXCLUDING RETURN

Because the Board has adopted a throughput forecast that differs from that submitted by the Applicant, certain cost of service figures including fuel and power costs, oil loss allowance and income taxes must be recalculated by the Applicant. Regarding other components of the cost of service, the Board has made adjustments of a minor nature.

CAPITAL STRUCTURE AND RATE OF RETURN

Older System

For the Older System, the Applicant proposed using a deemed capitalization equal to average test year rate base plus construction work in progress. For the determination of the Older System rate of return on rate base, the Board approves the use of this deemed capitalization.

Long-Term Debt

The applied-for balance of long-term debt represents the average projected test year balance of debt capital associated with the Older System. The Company proposed to cost it at a rate of 9.97 percent which reflects an allocation of one-half of the cost of amending IPL's corporate trust indenture.

The Board finds that the trust indenture amendments would have been required for the expansion of the existing Integrated System and that the benefits to existing users from increased throughputs from the Norman Wells project will outweigh the associated increase in the cost of debt. The Board approves the applied-for balance of long-term debt and the proposed cost rate of 9.97 percent.

Prefunded Debt

The prefunded debt represents a deduction from the total capitalization and corresponds to the portion of long-term debt raised in advance of the Company's actual cash requirements. The Company expects to invest the excess cash at a short-term interest rate of 11 percent on average over the test year, whereas the cost of this debt is 12.25 percent. Because the Company raised long-term debt at a favourable moment, the Board has permitted IPL to recover the effect of the difference between the two interest rates.

Common Equity Ratio

The Company applied for a deemed common equity ratio of 45 percent, an increase of 2.5 percent over the rate approved in the Company's last toll hearing. The Board finds that the level of risk confronting the Company's regulated operations is not significantly different from the level it faced at the time of its last toll hearing. In addition, the Board is not persuaded that the Older System equity ratio should be increased either because of the Company's advanced life-cycle stage or because of any risk transfer from the Montreal Extension. The Board approves a deemed common equity ratio of 42.5 percent, unchanged from the level currently allowed.

Rate of Return on Common Equity

The Company applied for a 16.25 percent rate of return on common equity, representing a one percent increase over the rate approved in the Company's last toll hearing. As stated earlier, the Board finds that the Company's pipeline operations do not face a level of risk significantly different from that which existed at the time of its last toll hearing. The Board also notes that the levels of return forecast for the test year by the Company's expert witnesses in respect of long-term debt and selected comparable equity securities do not materially differ from those generally expected to be available when the present rate of return was approved following IPL's last toll hearing in May 1980. In light of these considerations, the Board finds 15.25 percent to be a fair and reasonable rate of return on the approved 42.5 percent deemed common equity ratio.

Montreal Extension

The Board accepts the applied-for balance of long-term debt. The Board also approves the associated 10.96 percent cost rate which reflects the allocation of a portion of the cost of amending the Company's trust indenture.

THROUGHPUT

The Company submitted a throughput forecast for the test year of 174 100 cubic metres per day, including 800 cubic metres per day of propane. Because the Board believes that some of the crude oil surplus forecast by the Applicant will move via IPL's system, the Board has adjusted the throughput forecast to 181 500 cubic metres per day. This forecast excludes the Company's estimate of propane throughput.

TOLL DESIGN AND OTHER TARIFF MATTERS

Interprovincial submitted tolls for the test year based upon the two-part rate design methodology even though the results of the May 1978 test indicated that the integrated rate structure could have been used. The Company felt this approach was consistent with the Board's June 1980 Reasons for Decision in which similar circumstances existed.

The Board directs Interprovincial to calculate its tolls for 1984 using the integrated rate structure. The Board is of the opinion that this approach will result in lower tolls for the Older System users than those which would have been determined using the two-part structure and in less erratic toll changes, in the future, for the Montreal Extension users.

NGL and Refined Products Surcharges

The Board denies the Company's request to change the method of applying the surcharges applicable to the NGL and refined products from an additive basis to a percentage basis using a levelling approach. In addition, the Board requires the Company to revise the methodology used to calculate the NGL surcharge revenue requirement so as to remove the amount for loss of capacity and to incorporate a power cost saving credit.

Change in Tariff Rules and Regulations

The Board approves the Company's proposed revision to its Tariff Rules and Regulations whereby the petroleum shipped by Interprovincial will be subject to the tolls in effect on the date of delivery rather than the date of receipt.

Interim Tolls

By Order TOI-2-83, the Board directed that Interprovincial's existing tolls be interim, effective 1 January 1984, and remain in effect until the Board issues its final Order with respect to the Applicant's tolls.

After the Board has approved new tolls calculated in accordance with the Board's directions and these Reasons, the Board will direct Interprovincial to calculate the difference between the interim tolls and the new tolls and to refund or recover any such difference together with interest.

CHAPTER 1

THE APPLICATION

Interprovincial Pipe Line Limited was incorporated by a Special Act of the Parliament of Canada on 30 April 1949. It was continued as a company under the Canada Corporations Act, by letters patent issued on 1 August 1973 and under the Canada Business Corporations Act by a certificate of continuance issued by the Minister of Consumer and Corporate Affairs on 2 June 1980. It is a company within the meaning of the National Energy Board Act. The powers of the Applicant include those of constructing and operating interprovincial and international pipelines and related facilities for the transmission of oil.

The Applicant owns and operates, as a common carrier, an oil pipeline system from Edmonton, Alberta, to a point on the international boundary between Canada and the United States near Gretna, Manitoba, and from a point on the international boundary in the St. Clair River near Sarnia, Ontario to Montreal, Quebec. Branch lines extend from Westover, Ontario, to a point on the international boundary in the Niagara River near Chippewa, Ontario, and to Nanticoke, Ontario. The pipeline owned and operated by Interprovincial is a pipeline within the meaning of the Act.

The pipeline system owned and operated by the Applicant interconnects with the pipeline system owned by Lakehead Pipe Line Company Inc. on the international boundary between Canada and the United States at points near Gretna, Manitoba and the St. Clair River near Sarnia, Ontario. Lakehead is a wholly owned subsidiary of the Applicant, and being located in the United States is regulated by the U.S. Federal Energy Regulatory Commission.

Interprovincial Pipe Line Limited, through its subsidiary IPL(NW) Ltd., owns a pipeline currently under construction from Norman Wells, Northwest Territories to Zama Lake, Alberta. This pipeline is regulated as a separate entity by the Board and is outside the scope of this hearing.

Interprovincial's initial toll hearing was held in several sessions during 1976, 1977, and 1978, followed by a second toll hearing in May 1980. Since the May 1980 hearing, the Company has been granted four toll adjustments under the procedures established by Order TO-4-80, namely on 15 February 1981, 9 December 1981, 29 April 1982, and 1 July 1983. The tolls currently charged by IPL are set out in Tariffs NEB Nos. 121, 122, 123; and the Company's Rules and Regulations governing the transportation of petroleum are set out in Tariff NEB No. 108.

By an Application dated 9 September 1983, Interprovincial applied under Part IV of the NEB Act for Orders to approve:

- (1) new tolls, including tolls for a proposed propane service;
- (2) changes in tariff rules and regulations; and
- (3) surcharges based on a percentage of light crude tolls for NGL, refined products, and the proposed propane service.

By Order RH-3-83, the Board set the Application down for public hearing commencing on 15 November 1983, in Ottawa, Ontario. The hearing concluded on 30 November 1983.

Interventions were received from Air Canada, Canadian Pacific Airlines Limited, Nordair Ltd., the Canadian Federation of Independent Petroleum Marketers, Chevron Canada Resources Limited, Dome Petroleum Limited, the Independent Petroleum Association of Canada, PanCanadian Petroleum Limited, Texaco Canada Resources Ltd., TransCanada Pipe-Lines Limited, and the Minister of Energy for Ontario.

By Order TOI-2-83, the Board directed that the Company's existing tolls be made interim, effective 1 January 1984, and remain in effect until the issuance of a final order with respect to the Application.

CHAPTER 2

PROPOSED PROPANE SERVICE

On 27 May 1982, IPL applied to the Board for authorization to modify its existing Line No. 8 between Sarnia and Millgrove Junction and to assign it exclusively to specification propane service. On 4 May 1983, the Board issued Order XO-1-83 approving the project, including the construction and operation of truck and rail loading facilities in the Township of Lamborough. Subsequent to that approval, the Township of Lamborough and several other parties expressed their concern to the Board regarding the proposed location of the loading facilities, and requested that the Board reconsider that part of its May 1983 Decision. The Board issued Order MH-1-83 and commenced a hearing on 16 August 1983. Soon afterwards, the hearing was adjourned as the Township and other groups challenged the jurisdiction of the Board with respect to the proposed propane project, firstly before the Board

itself, and secondly before the Federal Court of Appeal. The application to the Court of Appeal has not yet been heard.

The Board finds it highly unlikely that this project will come into service during the test year, given that construction would take some 10 months after final approval of the project. Therefore, the Board has decided to defer to a later date consideration of all matters related to the proposed propane service and to remove its associated costs from the Older System rate base and revenue requirement for the test year. The required cost adjustments and deletions are addressed in the relevant sections.

The questions of the appropriate toll design and estimated throughputs of the propane service are not addressed in these Reasons.

CHAPTER 3

RATE BASE

3.1 Summary

The principal rate base issues addressed during the hearing were as follows:

- the use of a simple average of the opening and closing balances versus a 13-month average to determine average net assets in service for the test year;
- the treatment of the propane-related test year capital additions and linefill estimates for the test year;
- whether the capital cost of the jet aircraft should be allocated among all the Company's activities;
- the total lag days, including the provision for lumpiness in the timing of payments and receipts, used by the Company in determining its allowances for working capital for both the Older System and the Montreal Extension.

The Board has decided to:

- (a) calculate average net assets in service using a 13-month average;
- (b) remove from average net assets in service the capital costs of the propane service, including the linefill, for the reasons discussed in Chapter 2;
- (c) adjust the Older System return and related income taxes to effectively assign a portion of the jet aircraft's net book value to Lakehead Pipe Line Company Inc.; and
- (d) reduce the total lag days for cash working capital for both the Older System and the Montreal Extension.

In addition, the Board has accepted the Company's Class "C" construction estimate for the test year.

The Board's decision regarding the determination of rate base is explained in succeeding sections of this chapter, and the resulting adjustments are detailed in Appendices IV and V and summarized in Table 3-1 for the Older System and Table 3-2 for the Montreal Extension.

3.2 Average Net Assets in Service

The Company, in keeping with historic practice, calculated its average net assets in service using the arithmetic mean of the opening and the closing balances of the net assets in service for the test year. During cross-examination, the Company was asked to respond to the suggestion that the effect of using the simple average of plant in service would be to allow the Company to earn a return on assets placed in service in the latter part of the test year as if those assets had been in service from 1 July, while interest during construction would also continue to accrue from 1 July until the date the assets were actually placed in service. The Applicant agreed that there was a potential for double counting in this manner, but indicated that assets put in service during the early months of the year would also earn a return as though the assets were put in service on 1 July. The Applicant acknowledged that the use of the 13-month average* was theoretically sound, but suggested it was not practical due to the inherent bookkeeping time lags in the recording of plant additions.

One intervenor supported the suggestion that plant additions be accounted for on a 13-month average basis as this would minimize the distortion inherent when major additions to rate base are made during the latter part of the test year.

The Board does not consider the bookkeeping time lag referred to by IPL as a relevant factor in considering the reasonableness of the forecast of plant additions for a forward test year. The Board finds that the use of a 13-month average would be a more precise method of calculating the forecast of plant in service. Accordingly, the Board, after giving effect to the adjustments made for exclusion of the costs associated with the proposed propane facilities, has adjusted the Older System average assets in service

* The 13-month average is obtained by aggregating the opening balance for the test year and the balances at the end of each month and dividing the total by 13.

TABLE 3-1

Summary of Rate Base—Older System
(Thousands of dollars)

	Per Application	NEB Adjustments	Preliminary Revised Figures
<u>Assets in Service</u>			
Transportation Plant	\$463,709	\$(5,627) ^{(1)†}	\$458,082 ^{(2)†}
Operating Oil Supply—Propane	3,200	(3,200) ⁽³⁾	—
Other Plant	187	—	187
Leasehold Improvements	546	(32)	514 ⁽⁴⁾
Plant Leased to Others	183	—	183
Adjustments —Non-Carrier Floors	335	—	335
—Norman Wells	(47)	—	(47)
Total Assets in Service	468,113	(8,859)†	459,254 †
<u>Accumulated Depreciation</u>			
Transportation Plant	(214,246)	52 ^{(5)†}	(214,194) ^{(6)†}
Other Plant	(95)	—	(95)
Amortization —Leased Facilities	(107)	—	(107)
Adjustments —Non-Carrier Floors	(51)	—	(51)
—Norman Wells	8	—	8
Total Accumulated Depreciation	(214,491)	52 †	(214,439)†
Net Assets in Service	253,622	(8,807)†	244,815 †
Allowance for Working Capital	6,453	†	† ⁽⁷⁾
Total Rate Base—Older System	\$260,075	\$ †	\$ †

† Figure must be supplied by the Company (see page vi).

⁽¹⁾ Propane adjustment of \$3,077,000 plus \$2,550,000 from the application of 13-month average to remaining assets in service.

⁽²⁾ Appendix IV, page 43; this figure must be adjusted to reflect the approved AFUDC rate (See Section 3.6).

⁽³⁾ This adjustment reflects the removal of propane linefill.

⁽⁴⁾ Appendix IV, page 47.

⁽⁵⁾ Propane adjustment of \$13,000 plus \$39,000 from the application of 13-month average to remaining assets in service.

⁽⁶⁾ Appendix IV, page 45; this figure must be adjusted to reflect the approved AFUDC rate (See Section 3.6).

⁽⁷⁾ Table 3-3.

by a further \$2,550,000 and the average accumulated depreciation by an additional \$39,000 to reflect this methodology (See Table 3-1).

In addition, the Montreal Extension average assets in service were adjusted by \$7,000 and the average accumulated depreciation by \$4,000. These adjustments are shown in Table 3-2.

3.3 Assets Related to the Proposed Propane Service

The Applicant included in the determination of the Older System rate base a capital addition of \$16.4 million for the proposed propane service, consisting of

\$10.0 million for modifications to existing Line No. 8 and the construction of new facilities, and \$6.4 million for propane linefill. Because the Board has deferred its decision on the propane service, the cost estimate for these facilities has been excluded from the determination of the Older System rate base.

The effect of this exclusion is to reduce the applied-for Older System average assets in service, calculated on a 13-month average basis, by \$3,077,000 for the removal of the proposed propane facilities (see Appendix IV, page 43, line 15, column (d)) and by \$3,200,000 for the removal of the linefill. Accumulated depreciation, calculated on a 13-month

TABLE 3-2

Summary of Rate Base—Montreal Extension
(Thousands of dollars)

	Per Application	NEB Adjustments	Preliminary Revised Figures
Assets in Service	\$238,573	\$ (7)	\$238,566 ⁽¹⁾
Accumulated Depreciation	(95,981)	4	(95,977) ⁽²⁾
Net Assets in Service	142,592	(3)	142,589
Allowance for Working Capital	369	†	† ⁽³⁾
Rate Base	<u>\$142,961</u>	<u>\$ †</u>	<u>\$ †</u>

† Figure must be supplied by the Company (see note page vi).

⁽¹⁾ Appendix IV, page 44.

⁽²⁾ Appendix IV, page 46.

⁽³⁾ Table 3-4.

average basis, has also been reduced by \$13,000 (See Appendix IV, page 47, line 13, column (c)).

3.4 Aircraft

The Applicant included the cost of a jet aircraft purchased in 1981 in its forecast of plant in service. During the hearing, the Company stated that the jet aircraft has been used on a regular basis by both IPL and Lakehead personnel, and on a very restricted basis for Interprovincial Pipe Line (NW) Ltd.* activities, but has not been used by IPL's new Toronto-based Resources Group.

The Applicant expressed the view that the aircraft is required and justifiable on the basis of its carrier operations in Canada. The Company stated that the incremental operating costs and depreciation expense of the jet aircraft are shared with Lakehead, its non-jurisdictional U.S. subsidiary, on the basis of the cubic metre-kilometre methodology approved by the Board.

The Board notes that at the time of the previous toll hearing in 1980, the jet aircraft then owned by IPL was fully depreciated, and as a result, the incremental operating cost allocation approach assigned a reasonable share of the total costs of operating the jet aircraft to Lakehead.

Because the Company has since acquired a new jet, the Board is of the opinion that the incremental

approach no longer results in just and reasonable tolls on the Canadian carrier portion of IPL's total pipeline system because it does not and will not assign a reasonable proportion of the capital-related costs of operating the jet to its "non-jurisdictional" Canadian and United States operations.

Because the Resources Group has not used the jet aircraft and IPL(NW) Ltd.'s use has been very restricted, the Board believes that for the test year the return component of the cost of the jet aircraft can be satisfactorily allocated between IPL and Lakehead using the same cubic metre-kilometre methodology as is currently used to assign a proportion of the depreciation expense to Lakehead.

Accordingly, the Board directs IPL to reduce the Older System test year revenue requirement by the return allocated to Lakehead and the income taxes associated with such return. Appendix V sets out the details of the methodology to be used in determining this adjustment.

For the next toll hearing, the Board directs the Company to develop a methodology that will equitably allocate the total cost among all activities that make use of the jet.

3.5 Working Capital

3.5.1 Provision for Cash Working Capital

The Applicant requested a provision for cash working capital based upon an average 25-day lag in the timing of payments and receipts for the Older System and a 9-day lag for the Montreal Extension.

* The activities of IPL(NW) Ltd. are outside the scope of this hearing.

	Older System (in days)	Montreal Extension (in days)
Receipts Lag	42.3	26.6
Disbursements Lag	(23.9)	(25.0)
Net Lag	18.4	1.6
Provision for Lumpiness*	6.6	7.4
Total Lag	25.0	9.0

* The provision for lumpiness is a cushion that recognizes that there may be variations in the timing of receipt of revenues and payment of expenses which are outside of the control of the Company and have not been taken into consideration in the lead-lag study.

During the hearing, the Company indicated that a new lead-lag study had been conducted that was, in its opinion, a refinement over the previous study. The Company acknowledged that the provision for lumpiness could not be substantiated quantitatively, but argued that it does provide for variations in cash

receipts and disbursements throughout the year. The provisions of 6.6 days for the Older System and 7.4 days for the Montreal Extension were reasonable, in the opinion of a Company witness, because they were relatively close to the provision of 7.1 days which was allowed in the Board's decision of June 1980.

During cross-examination, the Company agreed that, in principle, the provision for lumpiness should decrease as a lead-lag study becomes more refined.

Some intervenors argued that the cushion should be eliminated except to the extent that there is a demonstrated need for its inclusion.

The Board accepts the Company's evidence on the determination of the net lag days. However, for the Older System, the Board considers it appropriate to reduce the provision for lumpiness by two days, in the absence of evidence as to the actual variation in the timing of receipts and disbursements. This reduces the total provision for cash working capital for the Older System to 23 days cash operating expense as shown in Table 3-3.

TABLE 3-3
Determination of Working Capital
Older System⁽¹⁾
(Thousands of dollars)

	Per Application	NEB Adjustments	Preliminary Revised Figures
Cost of Service Including Income Taxes	\$103,942	\$ †	\$ † ⁽²⁾
Cash Exclusions and Non-Cash Items Included in Above:			
Amortization of Rate Hearing Costs	(300)	150	(150)
Provision for Depreciation and Amortization	(15,273)	82 ⁽³⁾	(15,191)
Amortization of Non-Carrier Leasehold Improvements	(22)	—	(22)
Amortization of Loss on Mainline Replacement	(622)	—	(622)
Depreciation Recovered on Charges to Lakehead	574	†	†
Depreciation Recovered on Charges to IPL(NW) Ltd.	3	—	3
Provision for Deferred Income Taxes	1,826	†	†
Insurance Expense	(663)	—	(663)
Oil Loss Expense	(3,197)	†	†
Cost of Service for Working Capital Allowance	\$86,268	\$ †	\$ †
Cash Working Capital			
25/365 x 86,268	\$ 5,909	—	—
23/365 x †	—	\$ †	\$ †
Operating Materials and Supplies Inventories	293	—	293
Prepaid Insurance	251	—	251
Allowance for Working Capital	\$ 6,453	\$ †	\$ †

† Figure must be supplied by the Company (see page vi).

⁽¹⁾ To be calculated using the format specified in Appendix VI.

⁽²⁾ Table 4-1.

⁽³⁾ Appendix IV, page 47.

With respect to the Montreal Extension, the Board notes that the requested provision for lumpiness of 7.4 days is roughly 4.6 times the calculable 1.6 net lag days. Again, in the absence of evidence justifying this figure, the Board has determined that the approved cushion for the test year on the Montreal Extension should be in the same proportion as that allowed for the Older System. This yields a provision for lumpiness of 0.4 day and a total provision for cash working capital of two days cash operating expense.

3.5.2 Payments to Bondholders and Shareholders

The Company, in response to a question by an intervenor, indicated that its current lead-lag study does not allow for the timing of payments to bondholders or to shareholders.

The Board accepts the Company's method of calculating cash working capital for the test year. However, as part of its next toll hearing application, the Board requires IPL to file, in addition to a lead-lag study based on the current methodology, a lead-lag study that shows the effect of including payments of interest on long-term debt and dividends in the determination of net lag days.

3.5.3 Prepaid Expenses

Consistent with past practice, the Company included only insurance as a prepaid item in determining its working capital requirement. However, in order to avoid double counting, the Company deducted the total insurance expense from the cash working capital determination.

During cross-examination, a Company witness agreed that IPL has other expenses of which a portion is prepaid such as taxes other than income taxes, rent expenses and employee benefits. However, such prepayables represent only a small portion of the total expense. As an example, the witness cited prepaid rent balances pertaining to an Ontario Hydro easement, the expense of which constitutes less than three percent of the total test year rent expense.

As a general principle, the Board is of the view that items that are similar in nature should be treated in a consistent manner. However, recognizing the minimal effect that such precision would have in determining the allowance for working capital for the test year, the Board accepts the Company's prepaid expense figures as shown in Tables 3-3 and 3-4.

TABLE 3-4

**Determination of Working Capital
Montreal Extension**
(Thousands of dollars)

	Per Application	NEB Adjustments	Preliminary Revised Figures
Cost of Service	\$17,076	\$ †	\$ † ⁽¹⁾
Cash Exclusions and Non-Cash Items Included in Above:			
Provision for Depreciation and Amortization	(6,883)	—	(6,883)
Insurance Expense	(186)	—	(186)
Oil Loss Expense	(566)	†	†
Cost of Service for Working Capital Allowance	<u>\$ 9,441</u>	<u>\$ †</u>	<u>\$ †</u>
Cash Working Capital			
9/365 x 9,441	\$ 233	—	—
2/365 x †	—	\$ †	\$ †
Operating Materials and Supplies Inventories	66	—	66
Prepaid Insurance	70	—	70
Allowance for Working Capital	<u>\$ 369</u>	<u>\$ †</u>	<u>\$ †</u>

† Figure must be supplied by the Company (see page vi).

⁽¹⁾ Table 4-2.

3.6 Allowance for Funds Used During Construction

In estimating the AFUDC related to the proposed capital additions for the test year, Interprovincial used the existing Older System approved rate of return on rate base of 9.7840 percent. Notwithstanding the use of this rate, which reflects both debt and equity financing, the Company asserted that the funds used to finance these additions were all equity funds. As a result, the Company did not include any AFUDC-related interest in the calculation of its current deferred income taxes.

During cross-examination, however, the Applicant indicated that it was unable to trace funds and as such

considered that all funds for capital additions come from a general pool of corporate funds.

The Board requires the Company to use the rate of return on rate base approved in this Decision to estimate its AFUDC for the test period. In the Board's view, the use of this rate requires that AFUDC be considered to consist of both a debt and an equity element. Therefore, the Board directs that the debt-related portion of total AFUDC must be reflected as a timing difference in the calculation of the Company's current deferred income taxes as shown in Table 4-3.

CHAPTER 4

COST OF SERVICE EXCLUDING RETURN

4.1 Summary

The principal issues examined during the hearing regarding cost of service were: salaries, wages and benefits; fuel and power costs; oil loss allowance; and income taxes. Other matters relating to Interprovincial's cost of service were also considered.

Board adjustments to the cost of service, excluding return, for the Older System and the Montreal Extension are as summarized in Tables 4-1 and 4-2, respectively. Comments on these adjustments appear in the succeeding sections of this chapter.

4.2 Salaries and Wages

In its estimate of test year salaries and wages, Interprovincial included general economic increases of six percent for the year 1983 and five percent for the test year 1984, and a further one percent for merit increases in each year. The Company stated that these escalation factors were used to comply with the terms of the federal government restraint program. The Board accepts these increases for the determination of the test year salaries and wages expense.

Interprovincial forecast that it would have on staff 548 employees by the end of the test year, including those employed in non-carrier activities. This forecast represented an increase of 30 employees from the base year. The Applicant indicated that 6 of the additional 30 positions would be required for the operation of the proposed propane service, which it projected would commence operation in October 1984. In view of the decision to exclude from the cost of service all items related to this proposed service, the Board has reduced Interprovincial's estimate of test year salaries and wages for the Older System by \$54,000* (see Table 4-1).

4.3 Fuel and Power Costs

Interprovincial's fuel and power cost estimate for the test year assumed that Line No. 8 would be shut down for several months for clean-up, prior to conversion to propane service, and crude oil previously transported in Line No. 8 would be transferred to Line No. 7.

As stated previously, the Board has decided to defer to a later date all matters related to the proposed propane service. Consequently, the Board directs that the Older System fuel and power cost for the test year be calculated on the assumption that Line No. 8 will continue to be employed for the transportation of crude oil throughout the test year.

During cross-examination, a Company witness indicated that the methodology used to calculate its fuel and power costs for the test year was consistent with that of the base year. The Applicant stated in final argument that any future power rate changes would be incorporated into its revised fuel and power costs calculation.

The Board directs IPL to calculate fuel and power costs for the test year using the existing methodology and the approved throughput forecast as shown in Table 7-2.

However, the Board considers it appropriate at this time to review the methodologies used to calculate the fuel and power cost, and to allocate these costs between the Older System and the Montreal Extension. Therefore, the Board directs the Company to file by 1 July 1984 a detailed description of these methodologies along with the 1983 actual and computer-estimated fuel and power costs for each of the provincial electric utilities. On the basis of this information, the Board will decide whether the Applicant's computerized power cost model should be modified.

4.4 Outside Services Expense and Materials and Supplies Expense

The Applicant included in the Older System cost of service for the test year an amount of \$500,000 to clean up and prepare Line No. 8 for propane shipments comprised of \$100,000 for materials and sup-

* In the Applicant's estimate of propane service costs, vacation pay was included in employee benefits, while for the total system, including the propane service, it was included in salaries and wages. The Board has adjusted the estimates of the propane service salaries, wages and employee benefits to be consistent with the total system estimate.

TABLE 4-1

**Cost of Service Excluding Return
Older System**

(Thousands of dollars)

	Per Application	NEB Adjustments	Preliminary Revised Figures
OPERATING EXPENSES:			
Salaries and Wages	\$ 20,217	\$ (54)	\$20,163
Operating Fuel and Power Costs	26,509	†	†
Materials and Supplies	2,417	(100)	2,317
Outside Services	4,492	(400)	4,092
Other Expenses	3,867	—	3,867
Amortization of Rate Hearing Costs	300	(150)	150
Oil Loss	3,197	†	†
Law Expenses	188	—	188
Rent	3,032	—	3,032
Employee Benefits	4,345	(90)	4,255
Insurance	663	—	663
Taxes, Other than Income Taxes	9,726	(72)	9,654
Total Operating Expenses	78,953	†	†
Provision for Depreciation and Amortization	15,273	(82) ⁽¹⁾	15,191
Other Amortizations	622	—	622
Other Income Deductions	213	—	213
Deductions from Cost of Service	(10,399)	30	(10,369) ^{(2)†}
Total Cost of Service Before Income Taxes	84,662	†	†
Provision for Income Taxes	19,280	†	† ⁽³⁾
Total Cost of Service	<u>\$103,942</u>	<u>\$ †</u>	<u>\$ †</u>

† Figure must be supplied by the Company (see page vi).

⁽¹⁾ Appendix IV, page 47.

⁽²⁾ Figure must be supplied by the Company including the Board's adjustment of \$30,000.

⁽³⁾ See Table 4-3.

plies and \$400,000 for outside services. Because the Board has decided to defer to a later date all matters related to the proposed propane service, the Board has reduced the materials and supplies expense and outside services expense by \$100,000 and \$400,000 respectively as shown in Table 4-1.

4.5 Toll Hearing Expenses

In the Application the Company proposed that its estimated toll hearing costs of \$300,000 be amortized completely in the test year.

Although the Board finds the provision for toll hearing costs acceptable, it notes that historically the Company has not come before the Board annually for toll hearings. The Board therefore directs that \$150,000 of the Applicant's toll hearing costs be

included in the cost of service for the test year, and that the balance of the costs actually incurred be written off in the subsequent year.

4.6 Oil Loss Allowance

The Applicant included, as part of its operating expenses, an oil loss allowance of 0.06 percent of throughput. Included in this allowance is 0.01 percent to cover additional oil losses, which the Applicant stated relates to the introduction in 1981 of new API Volumetric Expansion Tables.

The Company also stated that the oil loss figure could increase when oil receipts are recorded using the old API tables, but the oil deliveries are recorded using the new API tables. In material supporting the Application, the Company stated that where the new API

TABLE 4-2

**Cost of Service Excluding Return
Montreal Extension**
(Thousands of dollars)

	Per Application	NEB Adjustments	Preliminary Revised Figures
OPERATING EXPENSES:			
Salaries and Wages	\$ 1,958	\$ —	\$1,958
Operating Fuel and Power Costs	1,753	†	†
Materials and Supplies	256	—	256
Outside Services	626	—	626
Other Expenses	447	—	447
Oil Loss	566	†	†
Law Expenses	25	—	25
Rent	324	—	324
Employee Benefits	420	(8)	412
Insurance	186	—	186
Taxes, Other than Income Taxes	3,632	(70)	3,562
Total Operating Expenses	10,193	†	†
Provision for Depreciation and Amortization	6,883	—	6,883
Total Cost of Service Before Income Taxes	17,076	†	†
Provision for Income Taxes	—	—	—
Total Cost of Service	<u>\$17,076</u>	<u>\$ †</u>	<u>\$ †</u>

† Figure must be supplied by the Company (see page vi).

tables were used for both receipts and deliveries no additional oil losses would be shown.

Under cross-examination, the Applicant agreed that such losses would only appear at the time of the changeover to the new tables and would be limited to a period of 30 days. Further, the Applicant stated that it has set up an Oil Research and Movement Group to determine the cause of losses. This group has not yet been able to determine any specific causes for the oil loss increases.

The Board is of the view that the Applicant has failed to establish that the introduction of the new API Volumetric Expansion Tables resulted in additional oil losses, or to demonstrate a need for an additional 0.01 percent oil loss allowance for the 1984 test year. The Board therefore denies the Applicant's request for the additional 0.01 percent oil loss allowance and directs the Company to use 0.05 percent to calculate the oil loss allowance.

4.7 Employee Benefits

As in previous applications, Interprovincial projected test year employee benefits using a five-year average

of actual benefits expenses as a percent of total payroll.

Cross-examination demonstrated that this methodology overestimated actual benefits expenses in recent years. Therefore, while the Board accepts the methodology for the 1984 test year, the Board directs Interprovincial to provide a review of the merits of this methodology in its next toll hearing application.

In its calculation of the five-year average of 21.05 percent used to project employee benefits expenses in the test year, Interprovincial included an amount relating to severance pay incurred in 1982. Under cross-examination, the Applicant stated that this item was of a non-recurring nature and did not constitute a new program. Therefore, the Board concludes that this item should be excluded from the five-year average used to determine the test year employee benefits. As a result, the five-year average is reduced to 20.66 percent.

The test year allowance for employee benefits for the Older System has been reduced by \$79,000 as a result of excluding the severance pay, and by a further \$11,000 related to the proposed propane service, for a total reduction of \$90,000. In addition, the "Deductions from Cost of Service" component for the Older

System has been reduced by \$30,000 to reflect the adjustment to employee benefits (see Table 4-1). As a result of excluding the severance pay from the five-year average, the Montreal Extension employee benefits have been reduced by \$8,000 (see Table 4-2).

4.8 Taxes Other Than Income Taxes

During cross-examination, the Company submitted updated test year property tax estimates of \$8,486,000 for the Older System and \$3,272,000 for the Montreal Extension. The Board accepts these revised figures and, accordingly, has reduced the applied-for taxes other than income taxes by \$72,000 for the Older System and by \$70,000 for the Montreal Extension as shown in Tables 4-1 and 4-2, respectively.

4.9 Depreciation and Amortization

The Applicant included depreciation expense in the cost of service based on assets expected to be in service during the test year. The Board has reduced the depreciation expense submitted by the Applicant for the Older System by \$82,000 (see Appendix IV, page 5, line 12, column (b)), to reflect the removal of the capital cost of the proposed propane service from assets in service.

4.10 Income Taxes

4.10.1 Income Tax Provision

In the past, the Applicant has used the normalized method of calculating its income tax provision and proposes to follow the same practice in the test period. The methodology for calculating the income tax provision was not an issue at this hearing. The Board considers the continued use of the normalized method appropriate in the present circumstances. The Company shall calculate its provision for income taxes, current provision for deferred income taxes and income taxes payable for the test period as outlined in Table 4-3.

4.10.2 Specific Items to be Included in the Income Tax Calculations

(a) Deemed vs Actual Interest Expense

The Applicant proposed to use the interest expense that results from the deemed capital structure in calculating its income tax provision. The Applicant indicated that the proportionate capitalization associated with the jurisdictional activities should be used in determining the income tax provision, and that this method is consistent with the stand-alone principle of income tax determination.

Chevron Canada Resources Limited suggested that the income tax provision would be reduced if the actual interest expense of the Applicant were used in determining the income tax provision.

The Board finds that Chevron's suggestion would be inconsistent with the deemed capital structure principle of income tax determination. The Board accepts the Applicant's position and has decided that the interest expense that results from the approved deemed capital structure (see Chapter 5) should be used in determining the income tax provision.

(b) Capitalized Overhead

The Applicant stated that no portion of its capitalized overhead had been deducted in calculating its current income taxes payable. During cross-examination, the Company indicated that this practice had been reviewed and that henceforth it would deduct the general and administrative expense portion of capitalized overhead in determining current income taxes payable.

The Board has decided to incorporate this treatment in the determination of the current income taxes payable for the test year.

4.10.3 Timing Differences Related to Eligible Capital Expenditures

The Applicant treated the amortization of eligible capital expenditures related to rights-of-way costs and brokers fees associated with its Series A to F debentures totally as permanent differences. However, the Company agreed that one-half of this amortization could be treated as a timing difference and one-half could be treated as a permanent difference.

The Applicant presented the amortization of cumulative eligible capital which represents the amount written off for income tax purposes as a permanent difference but agreed that it could be treated as a timing difference.

Having considered the evidence, the Board has decided to include in the income tax calculations one-half of the amortization of eligible capital expenditures as a permanent difference, and the other half as a timing difference, and the amortization of cumulative eligible capital as a timing difference in the income tax calculations.

4.11 Allocation of Expenses to Non-Carrier Activities

During the hearing, the Applicant took the position that costs should be allocated to a non-jurisdictional activity only when that activity is of sufficient consequence to be material and has caused incremental costs to be incurred.

Two intervenors questioned the appropriateness of the incremental approach used by IPL to allocate costs to non-jurisdictional activities.

In light of the increase in the Company's non-jurisdictional activities, the Board has similar concerns regarding the Company's incremental cost allocation approach. The Board notes that it has been several years since there has been a review of all of the various

procedures used by IPL to allocate costs to each of the following:

- (a) non-jurisdictional activities such as Lakehead Pipe Line Company Inc., IPL(NW) Ltd., and the new Resource Group; and
- (b) the Older System and the Montreal Extension.

TABLE 4-3

Provision for Income Taxes and Deferred Income Taxes
(Thousands of dollars)

Provision for Income Taxes— Older System	Company's ⁽¹⁾ Application	Preliminary Revised Figures
Rate base	\$260,075	\$ † ⁽²⁾
Return	\$ 29,342	\$ †
Less: Return related to interest	(10,324)	†
Return related to equity	19,018	†
<u>Adjustments for Permanent Differences</u>		
Depreciation on land rights	535	268 ⁽³⁾
Depreciation on AFUDC	161	106 ⁽⁴⁾
Amortization of debt discount and expense on Long-term debt—Series A to F	341	171 ⁽⁵⁾
Adjustment for deferred tax	4	4
Other non-deductibles	24	24
Amortization of cumulative eligible capital	(272)	— ⁽⁶⁾
Taxable capital gain on debt reacquired	92	92
Accounting capital gain	(296)	(296)
Income tax base	\$ 19,607	\$ †
Provision for income taxes = income tax base x $\frac{.4937}{1-.4937}$	\$ 19,119	\$ †

The Board requires the Company to file with the Board, by 1 July 1984, descriptions of the current allocation procedures used to assign costs to each activity and the rationale for each procedure. The Company should list the major cost categories covered by each procedure and show separately the types of costs included in each category. The Company should address any concerns that it may have regarding existing procedures and should indicate how these procedures may be improved.

Current Provision for Deferred Income Taxes

Estimated depreciation	\$ 27,823	\$ 27,741 ⁽⁷⁾
Depreciation on land rights	(535)	(268) ⁽³⁾
Depreciation on AFUDC	(161)	(106) ⁽⁴⁾
Amortization of discount and expense on long term debt—Series A to F	—	171 ⁽⁵⁾
Amortization of discount and expense on long term debt—Series G	112	112
Amortization of hearing costs	300	150
Other amortizations	622	622
Capitalized general and administrative overhead	—	392 ⁽⁸⁾
Capital cost allowance	(24,459)	(24,296) ⁽⁹⁾
Amortization of cumulative eligible capital	—	(272) ⁽⁶⁾
Interest AFUDC	—	† ⁽¹⁰⁾
Net timing differences	3,702	†
Current provision for deferred income taxes @ .4931	\$ 1,826	\$ †
<u>Income Taxes Payable</u>		
Provision for income taxes	\$ 19,119	\$ †
Add: Current provision for deferred income taxes	1,826	†
Income taxes payable	\$ 20,945	\$ †

† Figures must be supplied by the Company (see page vi).

⁽¹⁾ Updated by Exhibit 8

⁽²⁾ To be calculated using the format specified in Appendix VI.

^{(3),(5),(6)} Reflects Board Decision outlined in 4.10.3

⁽⁴⁾ Reflects Board Decision outlined in 3.6. The equity portion of depreciation on AFUDC is treated as a permanent difference and the debt portion of depreciation on AFUDC is treated as a timing difference.

⁽⁷⁾ Reflects Board Decision in 3.2

⁽⁸⁾ Reflects Board Decision in 4.10.2(b)

⁽⁹⁾ Reflects Board Decisions in 3.2 and 4.10.2(b)

⁽¹⁰⁾ Reflects Board Decision outlined in 3.6. The interest portion of AFUDC booked in the test period is treated as a timing difference

CAPITAL STRUCTURE AND RATE OF RETURN

Interprovincial owns and operates an oil pipeline system with two distinct segments known respectively as the Older System and the Montreal Extension. For the Older System, the Applicant requested that the Board consider and decide upon a revised deemed capitalization, a higher cost rate for long-term debt, a rate at which to cost prefunded debt, a greater deemed common equity ratio, and an increased rate of return on common equity. For the Montreal Extension, Interprovincial requested that the Board make a determination regarding the request for a higher cost rate for long-term debt.

5.1 Older System

The Company applied for a rate of return on rate base of 11.2822 percent for the test year ending 31 December 1984 as compared to the existing approved rate of 9.7840 percent. This rate of return was based on a deemed capitalization* with individual cost rates as shown in Table 5-1.

5.2 Deemed Capitalization

Interprovincial submitted that the Board should, as it did in its 1980 Decision, employ a deemed capitalization for the determination of the Older System rate of return on rate base. The applied-for deemed capitalization is equal to the sum of the Company's estimated average test year rate base and construction work in progress.

The deeming of a capitalization serves to ensure that the ratepayer is required to pay tolls that reflect a rate of return which is consistent with the total amount of capital invested in the assets comprising a company's regulated operations and the risks faced by

such operations. Accordingly, the Board approves the use of a deemed capitalization in relation to the Company's current application.

5.3 Long-Term Debt

The long-term debt component of the deemed capitalization represents the average projected test year balance of debt capital associated with the Older System. It includes the amount required on average to finance the Older System rate base for 1984, as well a further amount of long-term debt issued by Interprovincial in 1983 to meet upcoming rate base funding requirements. The rate at which the System's users are given a credit for the unused portion of this debt issue is discussed in Section 5.4 below. No intervenor took issue with the applied-for balance of long-term debt and the Board approves the inclusion of this debt in the deemed capital structure used for rate-making purposes.

The Company calculated the embedded cost of long-term debt to be 9.97 percent. This rate reflects an allocation of one-half of the cost of amending Interprovincial's trust indenture.** The evidence indicated it was amended to reduce the Company's interest coverage requirement, enabling IPL to increase its level of indebtedness and to permit the issuance of project debt and subordinated debt. Interprovincial submitted that its proposed allocation of the associated costs was appropriate in that the amendments provided increased financing flexibility to the existing system and because it enabled the Company to undertake the Norman Wells project, which it considers will result in substantial savings to system users.

Cross-examination revealed that financing of the Norman Wells pipeline was the immediate reason for making the amendments in question. However, a Company witness testified that if the trust indenture interest

* A capitalization used for rate-making purposes that differs from a firm's actual capitalization. A deemed capitalization is generally implemented in circumstances where a company's equity capital exceeds the level considered appropriate to the risks of its utility assets or where a company becomes diversified to such an extent that its actual capitalization is not considered to form a suitable basis for calculating the cost of financing its utility assets.

** To amend its trust indenture the Company's bond holders required an increase in the coupon rates on outstanding debenture Series A through F of 50 basis points, of which 25 basis points was allocated to the debt cost of the Older System and the Montreal Extension.

TABLE 5-1

**Derivation of Applied-for Rate of Return on Rate Base
Older System**

	Amount	Ratio	Cost Rate	Cost Component
	(\$000)	(%)	(%)	(%)
Long-Term Debt	134,100	51.39	9.97	5.1236
Prefunded Debt	(27,384)	(10.49)	11.00	(1.1539)
Deferred Taxes	36,797	14.10	—	—
Common Equity	117,420	45.00	16.25	7.3125
	<u>260,933</u>	<u>100.00</u>		
Total Capitalization				
				<u>11.2822</u>
Rate of Return on Rate Base				

coverage test were applied to the Integrated System on a stand-alone basis, the Company could not issue sufficient debt to sustain a normal annual level of capital expenditures. He submitted that Montreal Extension shippers have benefitted from that pipeline's 100 percent debt financing, the least cost alternative, and that this form of financing reduced Interprovincial's ability to issue debt for Norman Wells. In addition, it was his view that monetary benefits significantly in excess of the allocated trust indenture amendment costs would accrue to Older System users from increased throughputs beginning in 1985. Consequently, he maintained that the allocation of one-half of the indenture amendment costs was reasonable in the circumstances.

Several intervenors argued that no portion of the cost of this amendment should be borne by the shippers on the Interprovincial system. One intervenor adopted this position based on the view that IPL could have continued to finance all required additions and improvements to its existing system in 1984 and for the foreseeable future without amending its trust indenture. A second intervenor maintained that the prime reason for amending the trust indenture was to facilitate financing of the Norman Wells pipeline and that, because this project is to be treated on a stand-alone basis for regulatory purposes, these costs should be allocated totally to the Norman Wells project.

The Board finds that trust indenture amendments would have been required for the existing combined system on a stand-alone basis and that the evidence presented indicated that the benefits to existing users from increased throughputs from the Norman Wells system will outweigh the associated increase in the cost of debt. The Board is of the view that the Company's proposed allocation of the cost of amending its trust indenture is reasonable in the circumstances and accepts the proposed long-term debt cost rate of 9.97 percent.

5.4 Prefunded Debt

Prefunded debt is a negative element representing the portion of long-term debt raised in advance of the Company's actual cash requirements.* The evidence indicates that the Company felt it advisable to prefund certain of its capital requirements because in its view, the funds would be required in the near future and it was seen to be an opportune time to borrow long-term at comparatively low interest rates.

Offsetting the cost of prefunded debt against the cost of long-term debt was questioned only in respect of the rate to be used. The Applicant proposed that the offset be made at the prospective short-term rate of interest available to the Company on these excess funds. Alternatively, one intervenor argued that the prefunded debt should be costed at a rate equal to the embedded cost of long-term debt in order that the level of tolls not be affected.

The Board is of the view that the short-term interest rate forms the most reasonable basis for the offset and that the specific rate of 11 percent proposed by IPL appears reasonable in light of current economic forecasts. Accordingly, the Board accepts the rate applied for by the Company.

5.5 Common Equity

5.5.1 Common Equity Ratio

The Company applied for a deemed common equity ratio of 45.0 percent, which represents an increase of 2.5 percent from the level currently approved for rate-making purposes. The Company submitted that such an increase was warranted based on the recommenda-

* The dollar value of this element is calculated by subtracting long-term debt, deferred taxes and common equity capital from the total capitalization.

tions of its expert witnesses and on its view that the pipeline is in the latter half of its life cycle and, consequently, needs a larger equity ratio to offset increased business risk and to improve its financial position, so as to avoid any undue financial strain resulting from the refinancing of existing long-term debt.

This ratio was seen by one of the Company's expert witnesses to represent the low end of a 45.0 to 50.0 percent range that he felt to be appropriate based essentially on his views with respect to increased Older System business risk and on the risk transfer aspects of the Montreal Deficiency Agreement.* In this regard, the witness submitted that the Montreal Extension was financed by debt secured by the Corporation's total assets and that no return on common equity was provided for in either the Deficiency Agreement or in the tolls related to the Montreal Extension, with the result that some risk was transferred to the Older System. Two other expert witnesses for the Company recommended 45.0 percent as the mid-point of what they felt to be an acceptable range of 42.5 to 47.5 percent. This range was adopted based on the stand-alone business risks of the Older System, which they felt had increased since Interprovincial's last toll hearing in 1980.

Those intervenors who expressed a view took the position that an increase from the existing approved deemed common equity ratio would be inappropriate. They contended that there had been no net increase in business risk since Interprovincial's last toll hearing. One intervenor argued for a decrease in the deemed common equity ratio to 37.5 percent based on the minimal risk contributed by the Montreal Extension, on reductions in the allowed common equity ratios of major gas transmission companies, and on a lack of necessity to build up IPL's equity for financing flexibility.

The Company's expert witnesses viewed increased business risk as emanating from greater supply, demand and government policy risks. Supply risk was viewed as having increased in that Interprovincial's throughput forecast contemplates virtually full production of heavy oil throughout the test year, thereby exposing the Company to a greater risk of revenue loss were any supply disruptions to occur. The Board notes, however, that during cross-examination two of the three witnesses were unable to identify possible sources of disruption in heavy oil supplies and that the third expert witness did not refer to this as a significant source of increased risk.

It was argued that demand risk had increased since the Company's last toll hearing for several reasons: competition from the Portland-Montreal pipeline system, from offshore tankers, and in the U.S. market; the introduction policies under the National Energy Program aimed at promoting energy conservation and substitution of gas and electricity for oil; a possible increased level of oil exchanges; possible further refinery closures; and the difficulty of predicting the strength of the economic recovery. During cross-examination, the witnesses were not, in the Board's view, able to provide convincing support for their claim of increased competition from the Portland Pipeline or from offshore tankers. Nor could they indicate to what extent, if any, greater competition in the United States had made inroads into the Applicant's markets. Notwithstanding their views of possible increases in oil exchanges, the evidence demonstrated that the number of such transactions has been declining for several years. With regard to the potential risk arising from further refinery closures, the testimony indicated that while one witness had not studied the matter, another witness thought future rationalization would be quite likely.

Government policy risk was seen to have increased due to: uncertainty surrounding the continuation of federal government subsidies supporting the shipment of oil to the Maritimes; the question of whether the federal government would price exports of heavy crude oil so as to ensure its competitiveness in U.S. markets; and possible reductions in authorized levels of light and heavy crude exports. With respect to the first item, the witness was unable to indicate the magnitude of the risk arising from the possible removal of the federal government subsidies. Cross-examination further disclosed that the pricing of heavy crude in U.S. markets is accomplished through the adjustment of related export taxes and that the government has effected timely adjustment of these taxes. Finally, it appears to the Board that a reduction in authorized light crude exports would not have a significant effect on Interprovincial's throughputs and that there is little reason to anticipate a change in government policy that would reduce heavy crude oil exports.

In relation to the risk transfer argument put forward by one of the witnesses as primary support for his 45 percent common equity recommendation, cross-examination indicated that he believed that the net transfer of risk to the Older System from the Montreal Extension is smaller at present than it was at the time of the last toll hearing. Cross-examination also brought to light the fact that the other expert witnesses considered this factor as being virtually insignificant in their determination of an appropriate deemed equity ratio.

With respect to reductions in business risk, both the Company and its expert witnesses agreed that the introduction of Class 1 and 2 toll adjustment proce-

* An agreement between the Government of Canada and the Applicant whereby the former has agreed to pay Interprovincial the amount of any shortfall experienced if the annual operating revenues of the Montreal Extension are insufficient to meet its fixed and variable costs of operation.

dures* since IPL's last toll hearing have served to reduce regulatory lag and hence risk. In addition, it was generally agreed that approval of the Company's proposal to charge the shippers the tolls in effect on the date of oil delivery rather than those in effect on the date of receipt by IPL, would permit the Company to collect new tolls on average 29 days earlier than is now the case.

Based on the evidence put forward in respect of the Applicant's operations, it does not appear to the Board that Interprovincial currently faces a significantly different level of business risk than it did at the time of the Company's 1980 toll hearing. Nor does the Board feel that any transfer of risk associated with the Montreal Extension is such that it warrants an increase in the Older System's deemed common equity ratio. The Board is not persuaded by the Company's argument that an increase in the deemed common equity ratio is appropriate by virtue of the fact that the pipeline is in the latter half of its life cycle. Equally, the Board is not persuaded by the arguments of one intervenor that the Company's deemed common equity ratio should be reduced below the level allowed it in the Board's June 1980 toll Decision.

Having considered all of the evidence presented in this connection, the Board has decided that a 42.5 percent common equity ratio continues to form an appropriate basis for determining the Older System's overall cost of capital and income tax provision for the test year.

5.5.2 Rate of Return on Common Equity

IPL applied for a rate of return on common equity of 16.25 percent. This represents an increase of one percent over the currently allowed rate of 15.25 percent. The Company's requested rate of return was based on the recommendations of its expert financial witnesses. One witness recommended a rate of return in the range of 16.0 to 16.5 percent based on his consideration of the equity risk premium, discounted cash flow (DCF), and comparable earnings approaches to estimating the cost of common equity capital. The outcome of his DCF and equity risk premium analyses led him to adopt estimates of the investors' required rate of return (IRR) for IPL's Older System operations ranging from 14.75 to 15.5 percent. These IRR results were restated to reflect what he viewed to be an acceptable market-to-book ratio of 1.1 to 1.2 and resulted in a recommended rate of return of 15.8 to 16.3 percent. The comparable earnings approach taken by the witness was based on what he viewed to be a comparable sample of high-grade, low-risk industrial compa-

nies. His analysis of the book equity returns indicated that these industrials had achieved rates of return ranging from 17.2 to 18.1 percent over the period reviewed while maintaining what were in his view adequate average market-to-book ratios. He then adjusted this range to reflect his expectations for reduced inflation and interest rates in the future and adopted a final range of 16.0 to 16.5 percent.

The Company's two other expert witnesses recommended a rate of return on equity of not less than 16.25 percent. They arrived at this recommendation through an analysis of returns applicable to two groups of industrial companies with risks perceived to be similar to those of the Older System. They also reviewed the consolidated results of other utilities with special emphasis being placed on the rates of return awarded their jurisdictional operations. Finally, they undertook an equity risk premium analysis.

The first portion of their analysis dealt with the comparable earnings test and examined experienced book rates of return on common equity for two groups of industrials over the periods 1975 to 1981 and 1977 to 1981. The results of this analysis, when combined with their comparable group return projections for 1984, led them to conclude that an appropriate rate of return should not be less than 16.25 percent. This result was confirmed, in their view, by their utility sample reviews. The witnesses also considered a DCF approach, which suggested an IRR for the comparable industrials of 15.0 to 15.5 percent. This range was then adjusted to reflect what was considered to be an acceptable market-to-book ratio of 1.15 to 1.2 and resulted in a rate of return recommendation of no less than 16.25 percent. They felt this result to be supported by their DCF analysis of a group of telephone utilities. The witnesses' final test involved the use of an equity risk premium approach, which resulted in a test year IRR estimate for the Older System in the order of 15.8 to 16.75 percent. In their view, this result supported their earlier findings of a rate of return on book equity of not less than 16.25 percent.

Several intervenors raised points in final argument in support of maintaining the existing approved rate of return of 15.25 percent. Concerning the comparable earnings test, it was noted that each of the witnesses included companies in their samples that the other would have excluded. One intervenor argued that none of the witnesses had undertaken any analysis to determine the extent to which the companies included in the samples are subject to competition in the market place, and that this tended to undermine the credibility of the resulting rate of return findings. It was further submitted that the whole sample selection process was very subjective and that it was inappropriate for two of the witnesses to place greatest emphasis on returns experienced during the period 1977 to 1981 as this period contained two of the five highest years for corporate profits found over the last 30 years. With

* Procedures adopted by the Board for adjusting tolls in certain circumstances, without resorting to a public hearing, thereby expediting the toll adjustment process.

respect to the DCF test, intervenors submitted that the growth rates derived were not well supported by the data and that the final results were not appropriately adjusted to compensate for declining inflation. Concerning the equity risk premium approach, it was argued that one witness made inadequate adjustments for inflation and for the IPL Older System's lower business risk when compared to that of the market as a whole.

The Board shares certain of the concerns expressed by intervenors that both sample selection procedures as well as the various adjustments made by the Applicant's witnesses had the effect of overstating the rate of return appropriate to the Company's circumstances. In addition, it is the Board's view that the Company's regulated operations do not currently face a significantly different level of risk than they did at the time of its last toll hearing. Finally, it appears to the Board that the level of returns forecast by the Company's expert witnesses for the 1984 test year in respect of long-term debt and selected comparable equity securities do not differ materially from those generally expected to be available at the time of the Company's last toll application.

In light of these considerations, the Board finds 15.25 percent to be a fair and reasonable rate of

return on the allowed 42.5 percent deemed common equity ratio.

5.6 Rate of Return on Rate Base

Based on its findings in this case, the Board approves the capitalization and rate of return on rate base for the Older System for the 1984 test year as shown in Table 5-2.

5.7 Montreal Extension

The Company applied for a rate of return on rate base in respect of the Montreal Extension of 10.3243 percent for the 1984 test year as compared to the existing approved rate of 9.7843 percent. The applied-for capitalization and corresponding individual and overall requested rates of return are shown in Table 5-3.

The Board accepts the embedded cost rate for long-term debt which reflects the allocation of a portion of the cost of amending the Company's trust indenture. However, the capitalization requires adjustment to reflect the revised average deferred tax balance resulting from changes in the income tax calculation shown in Table 4-3. Accordingly, the Board approves the capitalization and rate of return on rate base for the Montreal Extension for the test year as shown in Table 5-4.

TABLE 5-2
Derivation of Rate of Return on Rate Base
Older System

	Amount	Ratio	Cost Rate	Cost ⁽¹⁾ Component
	(\$000)	(%)	(%)	(%)
Long-Term Debt	134,100	†	9.97	†
Prefunded Debt	(†)	(†)	11.00	(†)
Deferred Taxes	†	†	—	—
Common Equity	†	42.50	15.25	6.48
Total Capitalization ⁽²⁾	†	100.00		
Rate of Return on Rate Base				†

† Figure must be supplied by the Company (see page vi).

⁽¹⁾ Figure to be rounded to two decimal places.

⁽²⁾ Total Capitalization = Older System average rate base (Table 3-1) plus average construction work in progress (Appendix VI).

TABLE 5-3

**Derivation of Applied-for Rate of Return on Rate Base
Montreal Extension**

	Amount	Ratio	Cost Rate	Cost Component
	(\$000)	(%)	(%)	(%)
Long-Term Debt	149,272	94.20	10.96	10.3243
Deferred Taxes	9,192	5.80	—	—
Total Capitalization	<u>158,464</u>	<u>100.00</u>		
Rate of Return on Rate Base				<u>10.3243</u>

TABLE 5-4

**Derivation of Rate of Return on Rate Base
Montreal Extension**

	Amount	Ratio	Cost Rate	Cost ⁽¹⁾ Component
	(\$000)	(%)	(%)	(%)
Long-Term Debt	149,272	†	10.96	†
Deferred Taxes	†	†	—	—
Total Capitalization	<u>†</u>	<u>100.00</u>		
Rate of Return on Rate Base				<u>†</u>

† Figure must be supplied by the Company (see page vi).

⁽¹⁾ Figures to be rounded to two decimal places.

CHAPTER 6

REVENUE REQUIREMENT

The net revenue requirement that the Company is authorized to collect by means of tolls will consist of the cost of service plus return on rate base less an adjustment for the portion of the return on the jet aircraft allocated to Lakehead Pipe Line Company Inc.

and the estimated revenues to be received from operations other than pipeline transportation service.

The Company is required to provide the Board with a summary of its net revenue requirement using the format set out in Table 6-1.

TABLE 6-1

Revenue Requirement
(Thousands of dollars)

	Per Application	NEB Adjustments	Preliminary Revised Figures
<u>Older System</u>			
Cost of Service	\$103,942	\$ †	\$ †
Return	29,342	†	†
Gross revenue requirement	133,284	†	†
Less: Jet Aircraft adjustment ⁽¹⁾	—	†	†
Other Revenue	169	—	169
Net Revenue Requirement	133,115	†	†
<u>Montreal Extension</u>			
Cost of Service	17,076	†	†
Return	14,760	†	†
Net Revenue Requirement	31,836	†	†
Total Net Revenue Requirement	\$164,951	\$ †	\$ †

† Figure must be supplied by the Company (see page vi).

⁽¹⁾ The jet aircraft adjustment represents that portion of the return on the jet that is allocated to Lakehead Pipeline Company Inc. plus an adjustment for the related income tax which is included in the cost of service. This adjustment reflects the methodology set out in Appendix V.

CHAPTER 7

THROUGHPUT

The Applicant submitted a throughput forecast for the test year 1984 of $174.1 \times 10^3 \text{m}^3/\text{d}$ which included $0.8 \times 10^3 \text{m}^3/\text{d}$ of propane (see Appendix VII). Because the Board has decided to defer to a later date all matters related to the proposed propane service, it has deleted the propane volumes from the forecast.

The principal issues addressed at the hearing in relation to throughput were:

- a) the disposition of Canada's light crude oil supply surplus to demand, as indicated in the Company's Application;
- b) the producibility of light sour blend (LSB) in the test year and its disposition.

7.1 Surplus Supply of Light Crude Oil and Equivalent

The Company's throughput forecast is based on the assumption that policies implemented during 1983 to maximize production of domestic crude would be extended into the test year. These policies are: competitive pricing of heavy crudes offered in the export market; approvals of light crude oil exports when significant volumes are surplus to domestic requirements; and extension of the transportation subsidy for movements of domestic crude to the Atlantic provinces. The Applicant indicated, however, that it felt that the transportation subsidy would only be extended to mid-1984, after which those volumes moving to the Atlantic would move as increased Eastern Canadian exchanges or as light crude exports.

The Company's calculation of the average surplus of domestic light crude oil and equivalent in 1984, which the Board finds reasonable, is shown in Table 7-1. During cross-examination, the Company witness was reluctant to admit that any increased light crude oil exports or Eastern Canadian exchanges which may result from a potential supply surplus and from the termination of the Atlantic transportation subsidy, would move via the Interprovincial system. It was the witness' belief that light crude exports and movements under Eastern Canadian exchanges would be exported from the west coast or via systems other than IPL.

TABLE 7-1

Estimated Supply and Disposition Light Crude Oil and Equivalent

		1984 $10^3 \text{m}^3/\text{d}$
Producibility		188.3
Domestic Receipts	171.6	
Exports	3.9	
	<u>175.5</u>	<u>175.5</u>
Potential Surplus		<u>12.8</u>

With regard to the termination of the Atlantic transportation subsidy in mid-1984, the witness stated that this assumption was based on information provided by shippers to the Atlantic. The witness felt that increasing East Coast exchanges and light crude exports could be a more economic solution to a potential shut-in problem than the transportation subsidy.

The Board agrees with the Applicant that the maximization of Canadian production is likely to continue into 1984 as a result of continuation of policies designed to achieve this result. In light of the expected surplus, however, the Board disagrees in two respects with IPL's throughput forecast. Firstly, the Board is of the opinion that it is likely the transportation subsidy for movements to the Atlantic will continue throughout the test year. Secondly, the Board does not share the view that IPL will carry no portion of any additional light crude exports or Eastern Canadian exchanges.

Based on the foregoing, it is the Board's view that $7.3 \times 10^3 \text{m}^3/\text{d}$ of the potential surplus of $12.8 \times 10^3 \text{m}^3/\text{d}$ of light crude oil forecast by the Company will move via the IPL system. The Board estimates that of this $7.3 \times 10^3 \text{m}^3/\text{d}$, $3.0 \times 10^3 \text{m}^3/\text{d}$ of light crude will be moved to Montreal for transshipment to the Atlantic and $4.3 \times 10^3 \text{m}^3/\text{d}$ of light crude will be exported via IPL.

7.2 Producibility and Disposition of Light Sour Blend (LSB)

The Applicant indicated an estimated producibility of LSB in the test year of $7.5 \times 10^3 \text{ m}^3/\text{d}$. During cross-examination, evidence was introduced indicating that production levels of LSB in the third quarter of 1983 were in the order of $8.5 \times 10^3 \text{ m}^3/\text{d}$. Although the Applicant's witness agreed with the data, he was unwilling to change the Company's estimate of producibility for the test year.

It is the Board's view that production of LSB in the test year will be maintained at the present level of $8.5 \times 10^3 \text{ m}^3/\text{d}$, all of which will be used domestically and will move on the IPL system.

7.3 NEB Forecast

The Board has adjusted IPL's throughput forecast in accordance with its conclusions and directs the applicant to use the forecast in Table 7-2 to calculate its tolls for the test year.

TABLE 7-2
1984 NEB Throughput Forecast for IPL
 $10^3 \text{ m}^3/\text{d}$

Delivery Location	Crude Source	Crude Type	Yearly Average
Edmonton	Edmonton	Light	0.6
Hardisty	Edmonton	Light	1.9
Kerrobert	Edmonton	Light	0.8
Milden	Edmonton	R.P.	1.1
		Sub-total	4.4
<u>Regina</u>			
	Edmonton	Light	4.0
	Edmonton	R.P.	3.0
	Hardisty	Heavy	0.2
		Sub-total	7.2
<u>Gretna</u>			
	Edmonton	R.P.	6.9
	Edmonton	RPT	0.5
	Regina	R.P.	0.1
		Sub-total	7.5
	Prairies	Sub-total	19.1
<u>U.S. Points</u>			
	Edmonton	Light	6.1
	Edmonton	Heavy	2.8
	Hardisty	Medium	3.7
	Hardisty	Heavy	9.9
	Kerrobert	Medium	0.7
	Kerrobert	Heavy	5.3
	Regina	Heavy	3.5
	Cromer	Light	0.0
	Cromer	Medium	2.3
		Sub-total	34.3

Sarnia

Edmonton	Light	28.0
Edmonton	Heavy	0.2
Edmonton	NGL	6.8
Hardisty	Light	0.3
Hardisty	Medium	0.7
Kerrobert	Light	0.7
Kerrobert	NGL	2.8
Cromer	Light	3.7
Cromer	Medium	1.9
Cromer	NGL	0.3
U.S. Points	USOL	5.0
	Sub-total	50.4

Toronto

Edmonton	Light	13.4
Hardisty	Light	1.4
Hardisty	Medium	2.2
Hardisty	Heavy	1.1
U.S. Points	USOL	0.2
Regina	Light	0.6
	Sub-total	18.9

Nanticoke

Edmonton	Light	14.4
Cromer	Light	0.1
Sarnia	Light	0.1
	Sub-total	14.6

Buffalo

U.S. Points	USOL	4.1
Sarnia	USOL	0.4
	Sub-total	4.5

Montreal

Edmonton	Light	32.1
Hardisty	Light	0.2
Hardisty	Heavy	2.0
Kerrobert	Light	0.7
Cromer	Light	4.7
	Sub-total	39.7

Total Deliveries	181.5
------------------	-------

Light —Light gravity crude
Medium —Medium gravity crude
Heavy —Heavy gravity crude
R.P. —Refined products
NGL —Natural gas liquids
USOL —U.S.&offshore light crude
RPT —Refined products using tankage

TOLL DESIGN AND OTHER TARIFF MATTERS

8.1 Toll Design

The construction of the IPL extension from Sarnia to Montreal was premised on security of supply considerations rather than economic reasons. Since that time, a question has existed as to the fairness of integrating the revenue requirement of the extension with that of IPL's existing system because this would have resulted in higher tolls to the users of the Older System in the early years. In its 1978 Decision, the Board adopted a two-part toll design in which tolls on the Older System were calculated as though the Montreal Extension had not been built, with the remainder of the revenue requirement being recovered through a separate toll on the Montreal Extension. For future use, the Board established a test whereby the applicable toll design, two-part or integrated, would be that which produced the lower tolls to users of the Older System.

In 1980, the test results indicated that a move to the integrated rate structure could have been made. However, the Board, in directing Interprovincial to continue to calculate its tolls using the two-part methodology, gave considerable weight to evidence presented by the Company regarding potential significant declines in throughput to Montreal in 1981 and 1982. These projected decreases suggested that the integrated rate design would be in effect for a very short period.

In its Application, Interprovincial calculated the tolls on its system using the two-part rate design even though the application of the approved test to the tolls derived from the applied-for revenue requirement indicated that a move could be made to the integrated rate structure. The Company stated that the two-part rate design had been used because Interprovincial felt that this would be consistent with the Board's June 1980 Reasons for Decision.

Interprovincial stated that the Company had no "fixed views" on whether a move from the two-part rate design to an integrated approach should be made. However, in final argument, Interprovincial requested that the Board allow the Company to continue to calculate its tolls using the two-part rate design because this method has been accepted by the industry. Inter-

provincial also suggested that if the Board were to adopt the integrated approach, it would prefer to remain on that basis in the interest of rate stability.

Counsel for the Minister of Energy for Ontario, who was the only intervenor who addressed this issue, suggested that Interprovincial be allowed to continue to calculate its tolls using the two-part rate structure because uncertainty remains regarding long-term throughputs to Montreal.

In the 1980 hearing, IPL forecast significant declines in throughput to Montreal for 1981 and 1982. In 1981, actual throughput to Montreal did decline by 24.6 percent to 37 100 m³ per day. In 1982, however, daily throughput averaged 42 600 m³ or 14.8 percent above the 1981 volume and is projected to be 39 700 m³ for the test year.

The Board agrees with IPL that the avoidance of undue fluctuations in tolls is an important goal. Table 8-1 presents the successive percentage changes in IPL's tolls from 1980 to 1983 for selected delivery locations (identified as "Two-Part"), contrasted with the estimated changes that would have occurred had the tolls been calculated on an integrated basis. The comparative volatility of tolls for deliveries to Montreal when calculated on the two-part basis is pronounced, and, in the Board's view, undesirable. Moreover, analysis of all delivery locations on IPL's system, as highlighted by the selected locations, suggests that the percentage changes would be more stable under the integrated approach.

In light of these considerations, the Board directs that IPL calculate its tolls for the test year using the integrated approach.

8.2 Cost Allocation

In the June 1980 Reasons for Decision, the Board approved refinements to the methodologies used by Interprovincial to allocate costs between the terminalling and transmission functions.

In its current application, Interprovincial incorporated a number of additional minor adjustments and reclassifications of costs to reflect a greater consist-

TABLE 8-1

**Integrated Versus Two-Part Rate Structure
Comparison of the Percentage Change in Tolls
for Selective Locations**

Effective Date of Tolls	Rate Structure	Edmonton-Sarnia (%)	Edmonton-Toronto (%)	Edmonton-Montreal (%)	Sarnia-Montreal (%)
From 80/09/01 to 81/02/15	Two-Part	6.4	6.4	30.5	61.3
	Integrated	11.1	11.2	11.6	11.2
From 81/02/15 to 81/12/09	Two-Part	16.5	16.4	(8.8)	(30.1)
	Integrated	7.8	7.7	7.5	7.7
From 81/12/09 to 82/04/29	Two-Part	6.2	6.3	5.9	5.4
	Integrated	6.1	6.1	6.1	6.1
From 82/04/29 to 83/07/01	Two-Part	(1.8)	(2.1)	(11.1)	(23.0)
	Integrated ⁽¹⁾	—	—	—	—

⁽¹⁾ The Board did not request the Company to supply the integrated tolls at the time of the 1 July 1983 adjustment.

ency with the inherent principles of allocating costs between the two functions.

The Board finds these refinements acceptable.

8.3 Changes in Tariff Rules and Regulations

8.3.1 Applicable Date of Tolls

The Company proposed a revision to its existing Tariff Rules and Regulations to provide that crude oil, refined products and NGL transported will be subject to tolls in effect on the date of delivery rather than on the date of receipt. The change is designed to eliminate the inherent delay in giving effect to new tolls resulting from pipeline in-transit time, which is the time it takes to transport petroleum from the date of receipt to the date of delivery. The average in-transit time for Inter-provincial is 29 days.

The Applicant stated in final argument that all other major oil pipelines regulated by the Board have their tolls based upon the date of delivery. This change was discussed by the Company with its shippers and none were opposed. The Applicant also pointed out that no intervenor opposed this revision.

One intervenor suggested that if the change were to be approved, it should be taken into account in examining business risk and the appropriate rate of return on common equity.

The Board notes that the proposed change should allow the Company a better matching of revenues and expenses. This would reduce the Company's business risk to the extent that it is influenced by regulatory lag. Therefore, the Board accepts the Company's proposed change to the Tariff Rules and Regulations.

8.3.2 Linefill Requirements

The Company proposed the addition of a new sentence to the Tenders and Quantities Section of the "Rules and Regulations Governing the Transportation of Crude Petroleum" as set out in Tariff NEB No. "A". This sentence reads as follows:

"However, a shipper tendering oil to the carrier on other than a regular basis will be assessed Line Fill in accordance with the shipper's requirements for delivery while his shipment is in transit."

A Company witness explained that the purpose of this change is to specify that for a spot shipment, the shipment itself would constitute the linefill. The witness also stated that no shipper objected to this proposed change.

The Board accepts the inclusion and wording of this addition.

8.3.3 Minor Wording Changes

The Board, recognizing that there are users of the tariff information other than shippers, directs Interprovincial in the interest of clarity to make the following changes to the text of proposed Tariff E:

1. Replace the current heading on page 3 "Rates for Medium Crude Petroleum" with the heading "Rates for Medium and Heavy Crude Petroleum".
2. Make the appropriate wording changes to the Sections entitled "Rates for Natural Gas Liquids" and "Rates for Refined Petroleum Products" on page 3 to reflect the continued use of an additive surcharge.

3. (a) Delete the section headed "Terminalling Charge" on page 3;
- (b) Insert in boldface type between paragraphs two and three on page 2 the sub-heading: "The rates listed below do not include the following"; and
- (c) Add after the paragraph referring to Lakehead's rates the paragraph "The terminalling charges of Montreal Pipe Line Company Limited at Montreal East, Quebec".

8.4 NGL and Refined Product Surcharges

8.4.1 Introduction

Shipments of natural gas liquids (NGL) and refined products are subject to surcharges over the basic light crude rate. Surcharge revenue requirements contained in the Application were calculated on a basis consistent with past practice, the composition of which is as follows:

TABLE 8-2

Surcharge Revenue Requirement Methodology

Component	NGL	Refined Products
Capital-Related Costs Including Return	\$1,749,981	\$ 704,448
Additional Operating Costs	106,409	376,145
Total Special Facility Costs	1,856,390	1,080,593
Plus: Condensate Shrinkage Loss	121,615	—
Loss of Capacity	560,487	—
Less: Tankage Credit	(670,053)	(717,431)
Surcharge Revenue Requirement	<u>\$1,868,439</u>	<u>\$ 363,162</u>

Interprovincial proposed to abandon the existing practice of using additive surcharges in favour of a percentage surcharge determined on a levelled basis for toll design purposes.*

The following questions related to surcharges were raised during the hearing:

- Should IPL continue to apply surcharges to medium and heavy crude oils, NGL, and refined products?
- If surcharges are warranted should the Company's existing methodologies for calculating the NGL and refined product revenue requirements be revised?
- Should the existing additive approach to determine the surcharges for NGL and refined products be replaced by a levelled percentage approach?

* Additive surcharge is a charge expressed on a cents per cubic metre basis which is added to the basic light crude toll. Percentage surcharge is a charge which is expressed as a fixed percentage of the basic light crude toll. Levelling is a process by which tolls of a given service are smoothed over time.

8.4.2 Need for Surcharges

The Company explained that surcharges are designed to recover the incremental costs related to the special requirements necessary to handle and move particular products. The maintenance of surcharges over the basic light crude rate for all products is, therefore, warranted. A Company witness stated that he did not foresee a time when special product shippers should be treated similarly to light crude shippers, so that the costs of those services would be rolled in with the cost of the light crude service and all shippers would be on an equal basis.

One intervenor, Dome Petroleum, suggested that shipments of NGL and refined products, which commenced in 1970 and 1971 respectively, should be considered mature services and no longer be subject to surcharges.

The Board is of the opinion that for the test year the incremental capital and operating costs incurred by IPL with respect to NGL and refined products should continue to be paid for by the users of those services. The Board, therefore, directs IPL to continue to apply surcharges in the manner described below.

8.4.3 Surcharge Revenue Requirement - Methodology

As indicated previously, the Company in its current application proposed that the methodology to determine the annual surcharge revenue requirements for NGL and refined products remain unchanged.

Dome suggested, however, that should the Board approve the continued use of surcharges, the Company's existing methodology to calculate the NGL surcharge revenue requirement should be amended. It was Dome's contention that the NGL surcharge revenue requirement should not contain an amount for loss of capacity and, further, that the methodology should be revised to include a power cost saving credit to NGL shippers.

(a) Loss of Capacity - Line No. 1

The Applicant stated that Line No. 1 had a calculated loss of capacity of 500 m³/d because of the high suction pressure required for NGL service. To reflect this loss, the Company included an amount of \$560,487 in its NGL surcharge revenue requirement.

Dome Petroleum submitted that there should be no loss of capacity in Line No. 1 in the NGL, refined products and synthetic crude services as compared to light crude service only. On the contrary, Dome claimed that the presence of NGL facilitates the movement of refined products in Line No. 1.

During cross-examination, IPL stated that the capacity of Line No. 1 in its present service is 22 700 m³/d downstream of Kerrobert and 19 000 m³/d downstream of Regina, whereas in crude oil service these capacities are between 21 000 and 23 000 m³/d from Kerrobert and 16 000 m³/d from Regina.

In the Board's view, the evidence does not support the existence of any loss of capacity resulting from transportation of NGL. The Board, therefore, directs the Company to remove the amount of \$560,487 for the test year from its NGL surcharge revenue requirement.

(b) *Power Cost Savings - NGL*

Dome Petroleum maintained that the energy required to move NGL is about one-third of that required for light crude. Dome proposed that a credit be given to NGL shippers based on either two-thirds of the total power cost or two-thirds of the energy cost only. The latter alternative would recognize that demand charges would decrease to a lesser extent than energy charges in pumping NGL.

During cross-examination, IPL agreed that in theory less energy is required to move NGL than light crude. However, the Company stated that because of the complexity of its power management system it was not possible to determine the actual power cost saving in moving NGL.

The evidence indicated that because NGL is the lightest material in the Company's pipeline system, requiring less power demand and energy, it provides benefits to the system. The Board recognizes that IPL has difficulty in determining the demand charge saving related to NGL movement under the present metering arrangement. Nevertheless, the Board is satisfied on the evidence before it that there is an energy cost saving when pumping NGL and believes that, because NGL is subject to a surcharge, this saving should be credited to NGL shippers. Even though the amount of the power cost saving is not currently known, the Board believes that the saving in the energy component at least can be approximated.

Because Dome failed to take into account the elevation profiles and the actual pipe diameters of Line No. 1, the Board does not accept Dome's estimate of a two-thirds energy cost reduction. The Board believes that the reduction would be approximately 50 percent of the energy costs. For purposes of estimating the energy saving, the Board has adopted IPL's estimate that energy costs are 60 percent of total power cost.

The Board, therefore, directs the Applicant to calculate the NGL power cost saving as outlined in Table 8-3 for the test year as follows:

- (1) the power cost allocated to NGL is to be calculated using the power cost and light crude equivalent for the western provinces;
- (2) a 40 percent demand and 60 percent energy split is to be used to determine the NGL energy charge; and
- (3) the power cost saving is to be 50 percent of the NGL energy charge.

The power cost saving so calculated is to be credited to the surcharge for NGL services.

The Board directs that the surcharge revenue requirement for NGL be determined using the revised methodology as shown on Table 8-4.

TABLE 8-3

Calculation of Power Cost Saving—NGL

1. Test Year Power Cost for the Western Provinces Based on Approved Forecast—Table 7-2	\$ †
2. Western Provinces Light Crude Equivalent (LCE) in m ³ .km/d	†
3. Western Provinces NGL LCE in m ³ .km/d	†
4. Ratio of NGL LCE/Total LCE Line No. 3/Line No. 2	†
5. NGL Power Cost Allocation Line No. 4 x Line No. 1	\$ †
6. NGL Energy Cost—60 % x Line No. 5	\$ †
7. NGL Power Cost Saving—50 % x Line No. 6	\$ †

† Figure must be supplied by the Company (see page vi).

TABLE 8-4

Surcharge Revenue Requirement—Revised Methodology for NGL

Component	NGL
Capital-Related Costs Including Return	\$ †
Additional Operating Costs	106,409
Total Special Facility Costs	†
Plus: Condensate Shrinkage Loss	121,615
Less: Tankage Credit	†
Power Saving Credit ⁽¹⁾	†
Surcharge Revenue Requirement	\$ †

† Figure must be supplied by the Company (see page vi).

⁽¹⁾ Methodology and calculation on Table 8-3

(c) *Refined Products*

Although some of the circumstances discussed in respect to the NGL surcharge might apply to the refined products surcharge, the Board notes that no shipper of refined products actively intervened with respect to the existing surcharge methodology or the proposed change to a percentage surcharge.

The Board directs the Company to continue to calculate the refined products surcharge revenue requirement using the existing methodology.

8.4.4 Surcharges - Additive Versus Percentage Basis

In support of its proposal to calculate surcharges as a percentage of the basic light crude toll, Interprovincial stated that this would allow all its surcharges to be calculated on the same basis.

Further, the Company proposed to use a levelled percentage because it would smooth out the effects of any major capital addition on the surcharge for a service having a relatively small rate base.

The Board is not convinced that there is a need to use a levelling approach for percentage surcharges. This type of approach may have merit in introducing a new service where levelling the toll may be desirable. Because the NGL and refined products services are mature services and because the adjustments made by the Board will significantly reduce the NGL surcharge, the Board sees no need to level these surcharges at this time. The Board notes that the levelled percentage surcharge proposed by IPL would collect revenues from refined product shippers in excess of the calculated refined product revenue requirement for the test year.

The Board directs that IPL continue to use the additive approach in calculating NGL and refined products surcharges for the test year.

8.5 Refined Product Tankage Charge - Gretna

Interprovincial indicated the Company will no longer be delivering light crude oil to Shell's St. Boniface refinery. As a result, the Company plans to construct one new tank and convert three existing light crude oil tanks at Gretna, Manitoba to refined product tankage in order to augment the existing tankage provided by Winnipeg Pipe Lines Limited at that location. The Company proposed that an additive surcharge be applied to refined product shipments using this tankage. The purpose of this charge is to recover the tankage credit granted to these shippers by the "allowance for shipper provided facilities" component of the refined product surcharge.

As discussed in Section 8.4.3 (c), the Board has allowed the continued application by the Company of

the existing methodology used to determine the refined product surcharge. The Board, therefore, finds the Company's basis for determining the refined product tankage surcharge at Gretna acceptable for the test year.

8.6 Propane Toll

As outlined in Chapter 2, the Board has decided to defer consideration of the appropriate toll design for the proposed propane service.

8.7 Interim Tolls

By Order TOI-2-83, the Board directed that Interprovincial's existing tolls be interim, effective 1 January 1984, and remain in effect until the Board issues its final Order with respect to the Applicant's tolls.

Section 52.2 of the NEB Act allows the Board, where it has made an interim toll order, to direct a company to recover or refund in a manner satisfactory to the Board, the amount by which the revenue collected from the interim tolls differs from the revenue determined by the application of the final tolls approved by the Board, together with interest on the amount recovered or refunded.

Once the Board has approved tolls calculated in accordance with these Reasons and Order No. TO-1-84, a final toll order will be issued setting the date on which the new tolls will come into effect.

Where shippers have been billed the interim tolls, the Board directs the Company to issue revised billings including interest on the difference between tolls prescribed by the Interim Order and tolls approved by the final order. The interest is to be calculated using a rate of 11 percent per annum applied to the average difference.

CHAPTER 9

Disposition

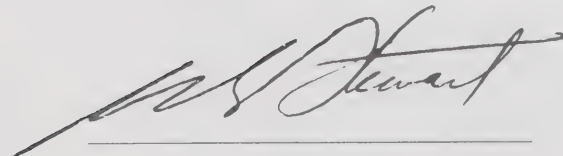
Order No. TO-1-84 shown as Appendix I hereto is predicated on these Reasons for Decision. The foregoing chapters (with the exception of the Executive Summary), together with Order No. TO-1-84, constitute our Reasons for Decision and our Decision.



L.M. Thur
Presiding Member



J.R. Jenkins
Member



W.G. Stewart
Member

ORDER NO. TO-1-84

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder, and

IN THE MATTER OF an application by Interprovincial Pipe Line Limited (hereinafter called "Interprovincial") for certain orders respecting tolls and tariffs pursuant to Part IV of the National Energy Board Act, filed with the Board under File No. 1762-J1-6.

BEFORE:

L.M. Thur)	
Presiding Member	)	On Monday the 13th day of
J.R. Jenkins	)	February, 1984
Member)	
W.G. Stewart)	
Member)	

UPON an application by Interprovincial Pipe Line Limited dated 9 September 1983, as amended, for an Order under Section 50 of the National Energy Board Act fixing the just and reasonable tolls and tariffs Interprovincial may charge for or in respect of the transportation of crude oil and other liquid hydrocarbons and for such order or orders as will enable the Company to file a tariff containing tolls which are just and reasonable;

AND UPON the Board having heard evidence and submissions relating to the said application at a public hearing which commenced on the 15th day of November, 1983;

THEREFORE IT IS ORDERED THAT:

1. The test year upon which Interprovincial's tolls and tariffs shall be based is 1 January 1984 - 31 December 1984.
2. The test year throughputs upon which Interprovincial's tolls and tariffs shall be based, shall be those set out in Appendix "A" hereto.
3. The return component of the cost of service for the Older System shall be calculated using a cost rate of 15.25 percent for common equity applied to a deemed common equity

ratio of 42.50 percent, a cost rate of 9.97 percent for long-term debt, and a cost rate of 11.00 percent for prefunded debt.

4. The return component of the cost of service for the Montreal Extension shall be calculated using a cost rate of 10.96 percent for long-term debt.
5. Interprovincial shall cease to calculate its tolls using the two-part rate structure and shall calculate its tolls for the test year using the integrated approach as defined in the Reasons for Decision dated February 1984.
6. Interprovincial shall revise its Tariff Rules and Regulations to provide that crude oil, refined products and natural gas liquids transported be subject to tolls in effect on the date of delivery by Interprovincial rather than on the date of receipt by Interprovincial.
7. Interprovincial shall calculate the value of each component of the revenue requirement that is identified in the Reasons for Decision dated February 1984 as to be calculated by Interprovincial. Ten (10) copies of the resulting calculations, and all intermediate calculations and working papers, shall be filed with the Board by 1 April 1984 and one (1) copy served on each party to the hearing as soon as possible thereafter.
8. Interprovincial shall design tolls and tariffs ("ordered tolls and tariffs") based on the principles and methodology set out in the Board's Reasons for Decision dated February 1984.
9. Interprovincial shall by 1 April 1984 file with the Board and serve upon interested persons the ordered tolls and tariffs, and notwithstanding filing, the ordered tolls and tariffs shall be and are hereby suspended until further order of the Board.
10. In this Order: "interested person" includes
 - (a) any party who intervened in the hearing held pursuant to Order No. RH-3-83
 - (b) Interprovincial's shippers
 - (c) (1) Attorney General of Alberta
(2) Government of Saskatchewan
(3) Attorney General of Manitoba

- (4) Minister of Energy of Ontario
 (5) Attorney General for the Province of Quebec
 (d) Any person who has notified Interprovincial and the Board in writing that he wishes to be registered as an interested party in Interprovincial's tolls and tariffs, and has been accepted by the Board as such.

"Montreal Extension" means the pipeline constructed by Interprovincial pursuant to Certificate of Public Convenience and Necessity No. OC-30 and any addition thereto from time to time authorized by the Board.

"Older System" means the pipeline constructed in Canada by Interprovincial other than the Montreal Extension.

DATED at the City of Ottawa, in the Province of Ontario, this 13th day of February 1984.

NATIONAL ENERGY BOARD



G. Yorke Slader
 Secretary

Appendix "A"

1984 NEB Throughput Forecast for IPL $10^3 \text{m}^3/\text{d}$

Delivery Location	Crude Source	Crude Type	Yearly Average
Edmonton	Edmonton	Light	0.6
Hardisty	Edmonton	Light	1.9
Kerrobert	Edmonton	Light	0.8
Milden	Edmonton	R.P.	1.1
		Sub-total	4.4
<u>Regina</u>			
	Edmonton	Light	4.0
	Edmonton	R.P.	3.0
	Hardisty	Heavy	0.2
		Sub-total	7.2
<u>Gretna</u>			
	Edmonton	R.P.	6.9
	Edmonton	RPT	0.5
	Regina	R.P.	0.1
		Sub-total	7.5
	Prairies	Sub-total	19.1

U.S. Points

Edmonton	Light	6.1
Edmonton	Heavy	2.8
Hardisty	Medium	3.7
Hardisty	Heavy	9.9
Kerrobert	Medium	0.7
Kerrobert	Heavy	5.3
Regina	Heavy	3.5
Cromer	Light	0.0
Cromer	Medium	2.3
	Sub-total	34.3

Sarnia

Edmonton	Light	28.0
Edmonton	Heavy	0.2
Edmonton	NGL	6.8
Hardisty	Light	0.3
Hardisty	Medium	0.7
Kerrobert	Light	0.7
Kerrobert	NGL	2.8
Cromer	Light	3.7
Cromer	Medium	1.9
Cromer	NGL	0.3
U.S. Points	USOL	5.0
	Sub-total	50.4

Toronto

Edmonton	Light	13.4
Hardisty	Light	1.4
Hardisty	Medium	2.2
Hardisty	Heavy	1.1
U.S. Points	USOL	0.2
Regina	Light	0.6
	Sub-total	18.9

Nanticoke

Edmonton	Light	14.4
Cromer	Light	0.1
Sarnia	Light	0.1
	Sub-total	14.6

Buffalo

U.S. Points	USOL	4.1
Sarnia	USOL	0.4
	Sub-total	4.5

Montreal

Edmonton	Light	32.1
Hardisty	Light	0.2
Hardisty	Heavy	2.0
Kerrobert	Light	0.7
Cromer	Light	4.7
	Sub-total	39.7

Total Deliveries 181.5

Light —Light gravity crude
 Medium —Medium gravity crude
 Heavy —Heavy gravity crude
 R.P. —Refined products
 NGL —Natural gas liquids
 USOL —U.S.&offshore light crude
 RPT —Refined products using tankage

ORDER NO. RH-3-83

IN THE MATTER of the National Energy Board Act and the Regulations made thereunder; and

IN THE MATTER OF an application by Interprovincial Pipe Line Limited (hereinafter called "the Applicant") for certain orders respecting tolls and tariffs pursuant to Part IV of the National Energy Board Act, filed with the Board under File No. 1762-J1-6.

BEFORE the Board on Monday, 26 September 1983.

UPON reading the application filed on behalf of the Applicant dated 9 September 1983, (hereinafter called "the Application"), under Part IV of the National Energy Board Act, for orders fixing the just and reasonable tolls the Applicant may charge for or in respect of the transportation of crude oil and other liquid hydrocarbons and for such further order or orders as will enable the Applicant to file a tariff containing tolls which are just and reasonable;

IT IS ORDERED THAT:

1. The Application will be heard at a public hearing commencing at 9:30 a.m. local time, on Tuesday, 15 November 1983 in the Hearing Room of the National Energy Board, Trebla Building, 473 Albert Street, Ottawa, Ontario, (hereinafter referred to as "the Hearing"). The Hearing will be conducted in either of the two official languages and simultaneous interpretation will be provided should a party to the proceedings request such facilities in his intervention.
2. The Applicant shall, forthwith, serve a true copy of the Application, if not already served, and a true copy of this Order, upon all its shippers and customers, upon each person listed in Appendix I to this Order, and, as soon as possible, upon each other party who has intervened pursuant to paragraph 4 of this Order.
3. The Applicant shall arrange to have the Notice of the Hearing as set out in Appendix II to this Order published by 11 October

1983, or as soon thereafter as possible, in one issue each of "The Herald" in Calgary and "The Journal" and "Le Franco-Albertain" in Edmonton, all in the Province of Alberta, "The Leader-Post" and "L'eau-Vive" in Regina, both in the Province of Saskatchewan; "The Winnipeg Free Press" and "La Liberté" in Winnipeg, both in the Province of Manitoba; "The Globe and Mail", "Toronto Star", "The Financial Post" and "Le Toronto Express", in Toronto, "The Citizen" and "Le Droit" in Ottawa, all in the Province of Ontario; "The Gazette", "Le Devoir" and "La Presse" in Montreal, all in the Province of Quebec, and as soon as possible in the Canada Gazette.

4. Any person intending to intervene in the Hearing, shall, by 24 October 1983, file with the Secretary of the Board thirty (30) copies of a written statement, in either of the two official languages, containing his submission, together with any supporting material, and as soon as possible thereafter shall serve three (3) copies of his submission and supporting material upon the Applicant and one copy upon each of the parties named in Appendix I of this Order. This submission:
 - (a) shall contain a concise statement of the facts from which the nature of the intervenor's interest in the proceeding may be determined;
 - (b) may admit or deny any or all of the facts alleged in the application;
 - (c) shall be endorsed with the name and address of the intervenor or his solicitor to whom communications may be sent;
 - (d) shall state the official language in which the intervenor wishes to be heard; and
 - (e) shall indicate whether the intervenor wishes to receive a copy of the application or a portion thereof from the Applicant.

A list of intervenors will be distributed to all parties by the Board on or shortly after 26 October 1983. Upon receipt of this list, all intervenors shall also serve a copy of their submission upon each other party who has intervened pursuant to this paragraph.

5. Any party who files a statement of intervention after 24 October 1983, must file and serve a Notice of Motion requesting leave to submit a late intervention. Such notice shall be filed and served in accordance with paragraph 8 of the Rules and Procedures set out in Appendix III to this Order.
6. Upon receipt of a written statement referred to in paragraph 4 hereof containing a request for a copy of the application or a portion thereof, the Applicant shall, as soon as possible, either provide the same or apply to the Board for relief from this requirement.
7. The Applicant shall prepare its direct evidence written in question and answer form with lines numbered (hereinafter called "written direct evidence") for each of its witnesses and shall,
 - (a) on or before 18 October 1983 file thirty (30) copies with the Board, and
 - (b) as soon as possible, serve one copy of the same upon any other party who has intervened pursuant to paragraph 4 of this Order.
8. Any party who has intervened pursuant to paragraph 4 and who wishes to present direct evidence in the Hearing, shall prepare written direct evidence, and shall, by 1 November 1983 file thirty (30) copies with the Secretary of the Board and serve one (1) copy of the same upon the Applicant and each other party who has intervened pursuant to paragraph 4.
9. The Rules and Procedures set out in Appendix III to this Order shall govern the conduct of the Hearing.
10. Any interested party may examine a copy of the Application and the submissions filed in the Board's Library:
9th Floor
Trebla Building
473 Albert Street
Ottawa, Ontario
K1A 0E5

or at the offices of the Applicant at the following addresses:

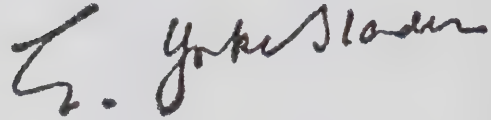
Interprovincial Pipe Line Limited
P.O. Box 48
1 First Canadian Place
Toronto, Ontario
M5X 1A4

or

Interprovincial Pipe Line Limited
10201 Jasper Avenue
Edmonton, Alberta
T5J 3N7

DATED at Ottawa, Ontario, 26 September 1983.

NATIONAL ENERGY BOARD



G. Yorke Slader
Secretary

Appendix I

ORDER NO. RH-3-83

Mr. Geoffrey Ho
Barrister and Solicitor
Legal Services
Alberta Energy and Natural Resources
Petroleum Plaza — South Tower
9915 - 108 Street
Edmonton, Alberta
T5K 2C9

Attorney General for the
Province of Saskatchewan
Legislative Buildings
Regina, Saskatchewan
S4S 0B3

Attorney General for the
Province of Manitoba
104 Legislative Buildings
Winnipeg, Manitoba
R3C 0V8

Attorney General of the
Province of Ontario
18 King Street East
Parliament Buildings
Toronto, Ontario
M5C 1C5

and

Mr. John M. Johnson
Director
Legal Services
Ministry of Energy
56 Wellesley Street West
12th Floor
Toronto, Ontario
M7A 2B7

Procureur Général de la
Province de Québec
Édifce Delta
1200 route de l'église
Ste-Foy, Québec
G1R 4X7

and

M^e Jean Giroux, avocat
Service juridique du Ministère
de l'énergie et des ressources
200B, chemin Ste-Foy
Quebec City, Québec
G1R 4X7

The Secretary
Canadian Petroleum Association
1500 - 633 - Sixth Avenue S.W.
Calgary, Alberta
T2P 2Y5

Mr. A.E. Potter
Manager, Regulatory Affairs
Independent Petroleum Association
of Canada
700; 707 - 7th Avenue S.W.
Calgary, Alberta
T2P 0Z7

Appendix II

ORDER NO. RH-2-83

NATIONAL ENERGY BOARD

NOTICE OF PUBLIC HEARING

INTERPROVINCIAL PIPE LINE LIMITED — TOLLS

The National Energy Board will conduct a hearing on an application by Interprovincial Pipe Line Limited for orders under Part IV of the National Energy Board Act fixing the just and reasonable tolls Interprovincial may charge for or in respect of transportation of crude oil and other liquid hydrocarbons and for such further order or orders as will enable Interprovincial to file a tariff containing tolls which are just and reasonable. The hearing will commence at 9:30 a.m. on Tuesday, 15 November 1983, in the Hearing Room of the National Energy Board, Trebla Building, 473 Albert Street, Ottawa, Ontario.

The hearing will be public and will be held to obtain evidence and hear the relevant views of interested parties, groups, organizations, and companies on the application.

Any person wishing to intervene should write or telex the Secretary of the Board, as soon as possible, requesting a copy of Order RH-3-83 (available in English or French) which sets out the procedure for intervening and the locations at which copies of the application may be examined. The deadline for filing interventions with the Board is 24 October 1983.

For further information, telephone the Board's Information Services at (613) 593-6936.

Dated at Ottawa, Ontario, 26 September 1983.

G. Yorke Slader
Secretary
National Energy Board
473 Albert Street
Ottawa, Ontario
K1A 0E5
Telex No. 053 3791

Appendix III

ORDER NO. RH-3-83

RULES AND PROCEDURES

1. In these Rules, "party" means Interprovincial Pipe Line Limited and any intervenor who has filed with the Secretary of the Board a written statement pursuant to paragraph 4 of Order No. RH-3-83.

2. At the public hearing of the Application by Interprovincial Pipe Line Limited, the evidence shall be heard in the following order:

- (1) Rate Base and Cost of Service excluding return;
- (2) Rate of Return;
- (3) Throughput; and
- (4) Toll Design and Other Tariff matters.

3. The Board will hear all of the evidence on each of the four items referred to in paragraph 2 of these Rules, item by item, and for that purpose the Board will first hear all of the evidence of the Applicant on all of the items and will then hear all the evidence of each intervenor in turn.

4. Upon the completion of the evidence on all four items referred to in paragraph 2 of these Rules, the Board will hear the oral argument of all parties.

5. At the hearing, each party shall file as exhibits two (2) copies of all material filed previously with the Secretary of the Board.

6. Any party who wishes to obtain additional information from another Party in respect of matters raised in filings made with the Board, may request in writing that such information be provided, and the party to whom the request is made shall, as soon as possible, either provide a written response to the request or refer the question to the Board under paragraph 8 hereof. In order to expedite the Hearing, such requests and responses should be made before the commencement of the Hearing and copies shall be filed with the Secretary of the Board.

7. Both the written requests and the responses thereto, referred to in paragraph 6 of these Rules, shall be filed as exhibits at the hearing.

8. If any question arises upon which a decision of the Board may be required, thirty copies of a notice of motion with respect thereto shall be filed with the Secretary of the Board, and one copy served on each party to the hearing. The motion will be heard by the Board on a date to be fixed by it.

9. The order of appearances of parties and sequence of adducing evidence and conducting cross-examination will be announced by the Board on or before the opening of the hearing.

Appendix III

ORDER NO. TOI-2-83

IN THE MATTER OF THE National Energy Board Act and the Regulations made thereunder; and

IN THE MATTER OF an Application by Interprovincial Pipe Line Limited (hereinafter called the "Applicant") for certain Orders respecting tolls and tariffs pursuant to Part IV of the National Energy Board Act, filed with the Board under File No. I762-JI-6.

BEFORE the Board on Wednesday, the 14th day of December, 1983.

UPON Interprovincial Pipe Line Limited having filed an application dated the 9th of September 1983 pursuant to Part IV of the National Energy Board Act (the "Act") for orders approving just and reasonable tolls and tariffs to be charged by the Applicant in 1984 for the transportation of crude oil and other liquid hydrocarbons;

AND UPON the Applicant having requested, *inter alia*, an Order fixing new tolls the Applicant may charge from and after 1 January 1984;

AND UPON the Applicant having charged and received tolls determined in accordance with National Energy Board Orders No.: TO-1-80, TO-4-80, TO-1-81, and TO-6-81, as amended;

AND UPON the Board having held a public hearing pursuant to Order RH-3-83 and having heard the evidence presented by the Applicant and interested parties;

AND UPON it appearing to the Board that some revision to the Applicant's tolls may be required;


AND UPON it appearing to the Board desirable to reserve its finding on the nature of such adjustments until it had had time to consider all of the evidence of the Applicant and interested parties presented at the said public hearing;

AND UPON the Board finding it appropriate to issue an interim Order, effective 1 January 1984, specifying that, until the Board issues its final Order with respect to the said application, the Applicant shall continue to charge and receive tolls contained in Interprovincial tariff identified as NEB No.: 108, 121, 122, and 123 as amended;

IT IS ORDERED THAT the Tariffs NEB No.: 108, 121, 122, and 123 as amended shall be interim tariffs and shall remain in effect only until such time as the Board issues its final Order with respect to the application for an Order respecting the Applicant's tolls, made to the Board on 9 September 1983;

AND IT IS FURTHER ORDERED THAT this interim Order shall come into effect on 1 January 1984.

NATIONAL ENERGY BOARD



G. Yorke Slader,
Secretary

Appendix IV

NEB DETERMINATION OF ASSETS IN SERVICE Summary of Assets in Service—(Account 30)

Older System

Line No.	Date	Balance as at 1984-01-01	Adjustment for Removal of Propane Service	Cumulative Adjustment for Removal of Propane Service	Additions	Cumulative Additions	Retirements	Cumulative Retirements	Cumulative Monthly Balance
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	
1	January 1	\$ 454,041,484	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 454,041,484
2	January 31	454,041,484	—	—	171,000	171,000	—	—	454,212,484
3	February 29	454,041,484	—	—	—	171,000	—	—	454,212,484
4	March 31	454,041,484	—	—	1,350,000	1,521,000	—	—	455,562,484
5	April 30	454,041,484	—	—	462,000	1,983,000	(196,203)	(196,203)	455,828,281
6	May 31	454,041,484	—	—	193,000	2,176,000	(1,500)	(197,703)	456,019,781
7	June 30	454,041,484	—	—	1,084,000	3,260,000	(41,986)	(239,689)	457,061,795
8	July 31	454,041,484	—	—	326,000	3,586,000	(18,467)	(258,156)	457,369,328
9	August 31	454,041,484	—	—	3,267,000	6,853,000	—	(258,156)	460,636,328
10	September 30	454,041,484	(10,000,000)	(10,000,000)	10,746,000	17,599,000	(61,305)	(319,461)	461,321,023
11	October 31	454,041,484	—	(10,000,000)	1,012,000	18,611,000	(61,303)	(380,764)	462,271,720
12	November 30	454,041,484	—	(10,000,000)	892,000	19,503,000	(11,156)	(391,920)	463,152,564
13	December 31	454,041,484	—	(10,000,000)	223,000	19,726,000	—	(391,920)	463,375,564
14	Total	<u>\$5,902,539,292</u>	<u>\$(10,000,000)</u>	<u>\$(40,000,000)</u>	<u>\$19,726,000</u>	<u>\$95,160,000</u>	<u>\$(391,920)</u>	<u>\$(2,633,972)</u>	<u>\$5,955,065,320</u>
15	Average ⁽¹⁾	<u>\$ 454,041,484</u>		<u>\$ (3,076,923)</u>		<u>\$ 7,320,000</u>		<u>\$ (202,613)</u>	<u>\$ 458,081,948</u>

⁽¹⁾ 13-month average

NEB DETERMINATION OF ASSETS IN SERVICE
Summary of Assets in Service—(Account 30)

Montreal Extension

Line No.	Date	Balance as at 1984-01-01	Additions	Cumulative Additions	Retirements	Cumulative Retirements	Cumulative Monthly Balance
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	January 1	\$ 238,553,509	\$ —	\$ —	\$ —	\$ —	\$ 238,553,509
2	January 31	238,553,509	—	—	—	—	238,553,509
3	February 29	238,553,509	—	—	—	—	238,553,509
4	March 31	238,553,509	15,000	15,000	—	—	238,568,509
5	April 30	238,553,509	—	15,000	(18,502)	(18,502)	238,550,007
6	May 31	238,553,509	—	15,000	—	(18,502)	238,550,007
7	June 30	238,553,509	10,000	25,000	(5,873)	(24,375)	238,554,134
8	July 31	238,553,509	—	25,000	—	(24,375)	238,554,134
9	August 31	238,553,509	—	25,000	—	(24,375)	238,554,134
10	September 30	238,553,509	37,000	62,000	—	(24,375)	238,591,134
11	October 31	238,553,509	—	62,000	—	(24,375)	238,591,134
12	November 30	238,553,509	—	62,000	—	(24,375)	238,591,134
13	December 31	238,553,509	—	62,000	—	(24,375)	238,591,134
14	Total	<u>\$3,101,195,617</u>	<u>\$62,000</u>	<u>\$368,000</u>	<u>\$(24,375)</u>	<u>\$(207,629)</u>	<u>\$3,101,355,988</u>
15	Average ⁽¹⁾	<u>\$ 238,553,509</u>		<u>\$ 28,308</u>		<u>\$ (15,971)</u>	<u>\$ 238,565,846</u>

⁽¹⁾ 13-month average

NEB DETERMINATION OF ASSETS IN SERVICE
Summary of Accumulated Depreciation—(Account 31)

Older System

Line No.	Date	Balance as at 1984-01-01	Adjustment for Removal of Propane Service	Cumulative Adjustment for Removal of Propane Service	Additions	Cumulative Additions	Retirements	Cumulative Retirements	Cumulative Monthly Balance
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	
1	January 1	\$ 206,841,108	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 206,841,108
2	January 31	206,841,108	—	—	1,250,483	1,250,483	—	—	208,091,591
3	February 29	206,841,108	—	—	1,251,053	2,501,536	—	—	209,342,644
4	March 31	206,841,108	—	—	1,251,053	3,752,589	—	—	210,593,697
5	April 30	206,841,108	—	—	1,256,904	5,009,493	(162,303)	(162,303)	211,688,298
6	May 31	206,841,108	—	—	1,262,106	6,271,599	(800)	(163,103)	212,949,604
7	June 30	206,841,108	—	—	1,262,692	7,534,291	(21,686)	(184,789)	214,190,610
8	July 31	206,841,108	—	—	1,269,577	8,803,868	(18,467)	(203,256)	215,441,720
9	August 31	206,841,108	—	—	1,270,875	10,074,743	—	(203,256)	216,712,595
10	September 30	206,841,108	—	—	1,279,918	11,354,661	(201,305)	(404,561)	217,791,208
11	October 31	206,841,108	(27,481)	(27,481)	1,309,278	12,663,939	(61,603)	(466,164)	219,011,402
12	November 30	206,841,108	(27,481)	(54,962)	1,312,095	13,976,034	(4,344)	(470,508)	220,291,672
13	December 31	206,841,108	(27,481)	(82,443)	1,314,975	15,291,009	(9,812)	(480,320)	221,569,354
14	Total	<u>\$2,688,934,404</u>	<u>\$(82,443)</u>	<u>\$(164,886)</u>	<u>\$15,291,009</u>	<u>\$98,484,245</u>	<u>\$(480,320)</u>	<u>\$(2,738,260)</u>	<u>\$2,784,515,503</u>
15	Average ⁽¹⁾	<u>\$ 206,841,108</u>		<u>\$ (12,683)⁽²⁾</u>		<u>\$ 7,575,711</u>		<u>\$ (210,635)</u>	<u>\$ 214,193,501</u>

⁽¹⁾ 13-month average

⁽²⁾ Appendix IV, page 5

NEB DETERMINATION OF ASSETS IN SERVICE
Summary of Accumulated Depreciation—(Account 31)

Montreal Extension

Line No.	Date	Balance as at 1984-01-01	Additions	Cumulative Additions	Retirements	Cumulative Retirements	Cumulative Monthly Balance
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	January 1	\$ 90,037,694	\$ —	\$ —	\$ —	\$ —	\$ 90,037,694
2	January 31	90,037,694	992,296	992,296	—	—	91,029,990
3	February 29	90,037,694	992,297	1,984,593	—	—	92,022,287
4	March 31	90,037,694	992,297	2,976,890	—	—	93,014,584
5	April 30	90,037,694	992,360	3,969,250	(16,102)	(16,102)	93,990,842
6	May 31	90,037,694	992,283	4,961,533	—	(16,102)	94,983,125
7	June 30	90,037,694	992,283	5,953,816	(5,873)	(21,975)	95,969,535
8	July 31	90,037,694	992,300	6,946,116	—	(21,975)	96,961,835
9	August 31	90,037,694	992,299	7,938,415	—	(21,975)	97,954,134
10	September 30	90,037,694	992,301	8,930,716	—	(21,975)	98,946,435
11	October 31	90,037,694	992,456	9,923,172	—	(21,975)	99,938,891
12	November 30	90,037,694	992,455	10,915,627	—	(21,975)	100,931,346
13	December 31	90,037,694	992,456	11,908,083	—	(21,975)	101,923,802
14	Total	<u>\$1,170,490,022</u>	<u>\$11,908,083</u>	<u>\$77,400,507</u>	<u>\$(21,975)</u>	<u>\$(186,029)</u>	<u>\$1,247,704,500</u>
15	Average ⁽¹⁾	<u>\$ 90,037,694</u>		<u>\$5,953,885</u>		<u>\$(14,310)</u>	<u>\$ 95,977,269</u>

⁽¹⁾ 13-month average

**NEB DETERMINATION OF ASSETS IN SERVICE
PROPANE PROJECT
ACCUMULATED DEPRECIATION**

Line No.	Account	Rate (in %)	Cost	One Month of Depreciation
	(a)	(b)	(c)	(d)
1	151	—	\$ 219,100	\$ —
2	153	2.86	1,840,900	4,387
3	159	3.33	774,900	2,150
4	160	4.00	1,101,800	3,673
5	162	3.33	5,903,000	16,380
6	185	6.67	160,300	891
7	Total		<u>\$10,000,000</u>	<u>\$27,481</u>

8	Month	Depreciation	Cumulative Depreciation
	(a)	(b)	(c)
9	October	\$27,481	\$ 27,481
10	November	27,481	54,962
11	December	27,481	82,443
12	Total	<u>\$82,443</u>	<u>\$164,886</u>
13	Average ⁽¹⁾		<u>\$ 12,683</u>

⁽¹⁾ 13-month average

**NEB DETERMINATION OF ASSETS IN SERVICE
Summary of Leasehold Improvements—Account 36**

Line No.	Date	Balance as at 1984-01-01	Cumulative Additions	Cumulative Monthly Balance
	(a)	(b)	(c)	(d)
1	January 1	\$ 508,605	\$ —	\$ 508,605
2	January 31	508,605	—	508,605
3	February 29	508,605	—	508,605
4	March 31	508,605	—	508,605
5	April 30	508,605	—	508,605
6	May 31	508,605	—	508,605
7	June 30	508,605	—	508,605
8	July 31	508,605	—	508,605
9	August 31	508,605	—	508,605
10	September 30	508,605	—	508,605
11	October 31	508,605	—	508,605
12	November 30	508,605	—	508,605
13	December 31	508,605	75,000	583,605
14	Total	<u>\$6,611,865</u>	<u>\$75,000</u>	<u>\$6,686,865</u>
15	Average ⁽¹⁾	<u>\$ 508,605</u>	<u>\$ 5,769</u>	<u>\$ 514,374</u>

⁽¹⁾ 13-month average

Appendix V

ADJUSTMENTS RELATED TO THE JET AIRCRAFT

Format For Adjusting the Older System Revenue Requirement
to Allocate a Portion of the Jet Aircraft
Return on Rate Base to Lakehead Pipe Line Company Inc.

(A) Average Net Assets in Service—Jet Aircraft (C-FIPG)

Average Assets in Service	\$6,807,865
Less: Average Accumulated Depreciation	<u>1,928,064</u>
Average Net Assets in Service for the Test Year	<u>\$4,879,801</u>

(B) Adjustment to Older System Revenue Requirement

(a) Return Allocated to Lakehead

(i) Return on Jet	=	Average Net Assets in Service	x	Rate of Return on Rate Base	
	=	\$4,879,801	x	† %	
	=	<u>\$ †</u>			
(ii) Return on Jet Allocated to Lakehead	=	Return on Jet	x	$\frac{\text{Lakehead's m}^3\text{.km/day}}{\text{IPL's m}^3\text{.km/day} + \text{Lakehead's m}^3\text{.km/day}}$	
	=	\$ †	x	†	
					= \$ †

(b) Adjustment for Related Income Taxes

Adjustment	=	Return on Jet Allocated to Lakehead	x	$\frac{6.48\%^{(1)}}{\text{Rate of Returnon Rate Base}}$	x	$\frac{\text{Income Tax Rate}}{1 - \text{Income Tax Rate}}$	
	=	\$ †	x	†	x	†	= \$ †

(c) Total Adjustment to the Older System Test Year Revenue Requirement

\$ †

† Figure must be supplied by the Company (see page vi).

⁽¹⁾ (15.25 percent Rate of Return on Common Equity) x (42.5 percent Common Equity Ratio) = 6.48 percent.

DETERMINATION OF OLDER SYSTEM AVERAGE RATE BASE AND AVERAGE CONSTRUCTION WORK IN PROGRESS

Steps for Iterative Format

1. (a) Calculate amounts for Operating Fuel and Power, Oil Loss, Deductions from Cost of Service and Depreciation Recovered on Charges to Lakehead.
(b) Determine Average Rate Base according to the format provided in Appendix VI, page 52, using the figures derived in step 1(a) and Nil for the Provision for Income Taxes and the Current Provision for Deferred Income Taxes.
2. (a) Calculate Return Related to Equity by multiplying the allowed weighted average cost of equity of 0.0648 by the Average Rate Base determined in step 1(b).
(b) Calculate the Provision for Income Taxes using the format outlined in Table 4-3, and the Return Related to Equity determined in step 2(a).
(c) Calculate the Current Provision for Deferred Income Taxes using the format outlined in Table 4-3. To derive an initial estimate of the Current Provision for Deferred Income Taxes, include the interest portion of AFUDC calculated at the applied-for rate of 9.7840% as a timing difference.
3. Recalculate Average Rate Base in step 1(b) using the Provision for Income Taxes determined in step 2(b) above and the Current Provision for Deferred Income Taxes determined in step 2(c) above.
4. Steps 2(a), 2(b), 2(c) and 3 should be performed five (5) times until a smoothed estimate of Average Rate Base is determined.
5. Use the final estimate of Average Rate Base determined in step 4 and Average CWIP as determined using the format specified in Appendix VI, page 52 (rounded to \$000's) to calculate an overall Rate of Return on Rate Base per Table 5-2. For the purposes of this calculation, the Current Provision for Deferred Income Taxes should be allocated between the Older System and the Montreal Extension on the same basis as in the Company's Application. Also, the applied-for AFUDC rate of 9.7840% should be used in determining an initial estimate of Average CWIP.
6. Use the overall Rate of Return determined in step 5 to calculate AFUDC to be booked for the test period. This AFUDC should be allocated on a 13-month average basis between CWIP and assets transferred to Assets in Service.
7. Adjust Average Net Assets in Service as shown in Appendix VI, page 52, to reflect the AFUDC allocation made in step 6.
8. Steps 1(b) to 8 should be performed five (5) times using the most accurate figures for:
 - 1 Average Rate Base.
 - 2 Average Construction Work in Progress.
 - 3 Rate of Return on Rate Base.
 - 4 AFUDC.

FORMAT FOR DETERMINATION OF AVERAGE RATE BASE

(Thousands of dollars)

AVERAGE NET ASSETS IN SERVICE \$244,815⁽¹⁾

ALLOWANCE FOR WORKING CAPITAL

Operating Expenses

Salaries and Wages	\$20,163
Operating Fuel and Power	†
Materials & Supplies	2,317
Outside Services	4,092
Other Expenses	3,867
Amortization Rate Hearing Costs	150
Oil Loss	†
Law Expenses	188
Rent	3,032
Employee Benefits	4,255
Insurance	663
Taxes, Other than Income Taxes	9,654

Total Operating Expenses	\$ †
Provision for Depreciation and Amortization	15,191
Other Amortizations	622
Other Income Deductions	213
Deductions from Cost of Service	(†)

Total Cost of Service Before Income Taxes	\$ †
Provision for Income Taxes	†
Total Cost of Service	\$ †

Cash Exclusions and Non-Cash Items

Included in Above

Amortization of Rate Hearing Costs	(150)
Provision for Depreciation and Amortization	(15,191)
Amortization of Non-Carrier Leasehold Improvements	(22)
Amortization of Loss on Mainline Replacement	(622)
Depreciation Recovered on Charges to Lakehead	†
Depreciation Recovered on Charges to IPL(NW) Ltd.	3
Current Provision for Deferred Income Taxes	†
Insurance Expense	(663)
Oil Loss Expense	†

Cost of Service for Working Capital Allowance	\$ †
---	------

Cash Working Capital (23/365 x cost of service for working capital allowance)	\$ †
---	------

Operating Materials and Supplies Inventories	293
--	-----

Prepaid Insurance	251
-------------------	-----

Allowance for Working Capital	†	†
-------------------------------	---	---

AVERAGE RATE BASE \$ †

FORMAT FOR DETERMINATION OF AVERAGE CONSTRUCTION WORK IN PROGRESS⁽¹⁾

Line No.	Date	Cost of Additions Before AFUDC	AFUDC on Additions	Transferred to Completed Plant ⁽²⁾	Monthly Balance
	(a)	(b)	(c)	(d)	(e)
1	January 1	\$	\$	\$	\$
2	January 31				
3	February 29				
4	March 31				
5	April 30				
6	May 31				
7	June 30				
8	July 31				
9	August 31				
10	September 30				
11	October 31				
12	November 30				
13	December 31				
14	Total	\$	\$	\$	\$
15	Average ⁽³⁾				\$

⁽¹⁾ Estimate of monthly additions to CWIP should include AFUDC which reflects the approved rate of return on rate base (See Section 3.6). All figures for all dates must be supplied by the company (see page vi).

⁽²⁾ As per Chapter 2, the propane project may not be transferred to Plant in Service during the test year. In determining the test year amount of CWIP for the project the Company should assume the construction schedule is delayed by three months.

⁽³⁾ 13-month average

† Figure must be supplied by the Company (see page vi).

⁽¹⁾ Includes AFUDC on approved net assets in service at the applied for rate of 9.7840 %

Appendix VII

INTERPROVINCIAL PIPE LINE LIMITED FORECAST DELIVERIES IN CUBIC METRES PER DAY Comparison of Test Year 1984 Forecast Deliveries as Filed in September 1983 and the Revised Forecast of Deliveries

Line No.	Delivery Location	Crude Source	Crude Type	1984 Test Year	1984 Revised Test Year	Increase (Decrease)
	(a)	(b)	(c)	(d)	(e)	(f)
1	Edmonton	Edmonton	Lgt.	600	600	—
2		Edmonton	Med.	—	—	—
3		Edmonton	Hvy.	—	—	—
4	Hardisty	Edmonton	Lgt.	1,900	1,900	—
5		Edmonton	Hvy.	—	—	—
6	Kerrobert	Edmonton	Lgt.	800	800	—
7	Milden	Edmonton	R.P.	1,100	1,100	—
8	Regina	Edmonton	Lgt.	4,000	4,000	—
9		Edmonton	Med.	—	—	—
10		Edmonton	R.P.	2,500	3,000	500
11		Hardisty	Lgt.	—	—	—
12		Hardisty	Med.	—	—	—
13		Hardisty	Hvy.	200	200	—
14	Gretna	Edmonton	Lgt.	—	—	—
15		Edmonton	Med.	—	—	—
16		Edmonton	R.P.	6,400	6,900	500
17		Edmonton	Hvy.	—	—	—
18		Edmonton	RPT.	500	500	—
19		Hardisty	Lgt.	—	—	—
20		Hardisty	Med.	—	—	—
21		Hardisty	Hvy.	—	—	—
22		Kerrobert	Hvy.	—	—	—
23		Regina	R.P.	100	100	—
24		Cromer	Lgt.	—	—	—
25			Sub-total	18,100	19,100	1,000
26	U.S. Points	Edmonton	Lgt.	1,800	1,800	—
27		Edmonton	Med.	—	—	—
28		Edmonton	Hvy.	2,800	2,800	—
29		Hardisty	Lgt.	—	—	—
30		Hardisty	Med.	3,700	3,700	—
31		Hardisty	Hvy.	6,900	9,900	3,000
32		Kerrobert	Med.	700	700	—
33		Kerrobert	Hvy.	6,300	5,300	(1,000)
34		Regina	Hvy.	3,500	3,500	—

Line No.	Delivery Location	Crude Source	Crude Type	1984 Test Year	1984 Revised Test Year	Increase (Decrease)
	(a)	(b)	(c)	(d)	(e)	(f)
35		Cromer	Lgt.	300	300	—
36		Cromer	Med.	2,300	2,300	—
37			Sub-total	28,300	30,300	2,000
38	Sarnia	Edmonton	Lgt.	24,800	28,300	3,500
39		Edmonton	Med.	—	—	—
40		Edmonton	Hvy.	200	200	—
41		Edmonton	NGL	6,800	6,800	—
42		Hardisty	Lgt.	300	300	—
43		Hardisty	Med.	700	700	—
44		Hardisty	Hvy.	—	—	—
45		Kerrobert	Lgt.	700	700	—
46		Kerrobert	Med.	—	—	—
47		Kerrobert	Hvy.	—	—	—
48		Kerrobert	NGL	2,800	2,800	—
49		Cromer	Lgt.	2,900	2,900	—
50		Cromer	Med.	1,900	1,900	—
51		Cromer	NGL	300	300	—
52		U.S. Points	USOL	5,000	5,000	—
53		U.S. Points	USOM	—	—	—
54			Sub-total	46,400	49,900	3,500
55	Toronto	Edmonton	Lgt.	9,900	13,400	3,500
56		Edmonton	Med.	—	—	—
57		Hardisty	Lgt.	1,400	1,400	—
58		Hardisty	Med.	2,200	2,200	—
59		Hardisty	Hvy.	1,100	1,100	—
60		Kerrobert	Lgt.	—	—	—
61		Kerrobert	Med.	—	—	—
62		Kerrobert	Hvy.	—	—	—
63		Regina	Lgt.	600	600	—
64		Cromer	Med.	—	—	—
65		U.S. Points	USOL	200	200	—
66		Sarnia	Lgt.	—	—	—
67			Sub-total	15,400	18,900	3,500
68	Nanticoke	Edmonton	Lgt.	14,400	14,400	—
69		Edmonton	Med.	—	—	—
70		Hardisty	Med.	—	—	—
71		Hardisty	Hvy.	—	—	—
72		Cromer	Lgt.	100	100	—
73		Sarnia	Lgt.	100	100	—
74		Sarnia	Hvy.	—	—	—
75			Sub-total	14,600	14,600	—
76	Buffalo	U.S. Points	USOL	4,100	4,100	—
77		U.S. Points	USOM	—	—	—
78		Sarnia	Hvy.	—	—	—
79		Sarnia	USOL	400	400	—
80			Sub-total	4,500	4,500	—

Line No.	Delivery Location	Crude Source	Crude Type	1984 Test Year	1984 Revised Test Year	Increase (Decrease)
	(a)	(b)	(c)	(d)	(e)	(f)
81	Montreal	Edmonton	Lgt.	30,100	29,100	(1,000)
82	(1)	Edmonton	Med.	—	—	—
83	(1)	Edmonton	Hvy.	—	—	—
84		Hardisty	Lgt.	200	200	—
85	(1)	Hardisty	Med.	—	—	—
86	(1)	Hardisty	Hvy.	2,000	2,000	—
87		Kerrobert	Lgt.	700	700	—
88	(1)	Kerrobert	Hvy.	—	—	—
89		Cromer	Lgt.	4,000	4,000	—
90	(1)	Cromer	Med.	—	—	—
91		U.S. Points	USOL	—	—	—
92	(2)	U.S. Points	USOM	—	—	—
93	(2)	Sarnia	Lgt.	—	—	—
94			Sub-total	<u>37,000</u>	<u>36,000</u>	<u>(1,000)</u>
95	Millgrove	Sarnia	Prop	<u>800</u>	<u>800</u>	<u>—</u>
96			Sub-total	<u>800</u>	<u>800</u>	<u>—</u>
97		Total Deliveries		<u>165,100</u>	<u>174,100</u>	<u>9,000</u>
98	Notes: (1)	Available for Export to U.S. Points Assuming no Deliveries to Montreal.				
99	(2)	Available for Deliveries to Toronto Assuming no Deliveries to Montreal.				
100	Legend:	Lgt.	— Light Gravity Crude	R.P.	— Refined Products	
101		Med.	— Medium Gravity Crude	NGL	— Natural Gas Liquids	
102		Hvy.	— Heavy Gravity Crude	USOL	— U.S.&Off-Shore Light Crude	
103		Prop	— Propane Liquid	RPT.	— Refined Products Using Tankage	

NOVEMBER 1983

